2026

UPSC CMS PAPER - I

CHAPTERWISE PREVIOUS YEAR QUESTION BANK (2025-2009)

- ☆ Fully Solved Latest Examination Paper
- ☆ Previous-Year Question Mapping Linked to Each Chapter
- ☆ Clear Explanations Highlighting Why Incorrect Options are Wrong.

NODIA

MEDink

Scan QR Code to Access Free PDF

GET ALL STUDY MATERIAL IN ONE APP!

- Textbooks
- Previous Year Chapterwise Question Banks
- 30 Sets Sample Papers
- Worksheets

FREE!

DOWNLOAD NOW!

SCAN & DOWNLOAD

GET IT ON Google Play

UPSC

Combined Medical Services (CMS)

PAPER – I

CHAPTER-WISE QUESTION BANK

With

Previous Year Examination Paper 2025

MEDINK

Downloaded from www.pdf.tube

CMS Paper – I Chapter-wise Question Bank
Edition December 2025
Copyright © By MEDINK

Information contained in this book has been obtained by author, from sources believes to be reliable. However, neither MEDINK nor its author guarantee the accuracy or completeness of any information herein, and MEDINK nor its author shall be responsible for any error, omissions, or damages arising out of use of this information. This book is published with the understanding that MEDINK and its author are supplying information but are not attempting to render engineering or other professional services.

MRP Rs 620.00

Now Available at
amazon.com
NOIDA

This book is available on amazon and flipkart only and not available in market.

Published by :
MEDINK
125, Sector 6, Vidyadhar Nagar, Jaipur 302039
www.med.ink

CONTENTS

	Previous Year Examination Paper 2025	5-50
CHAP 01.	General Medicine (Core Systems) Question	51-154
	General Medicine (Core Systems) Answer	155-290
CHAP 02.	General Medicine (Infections, Acute Care & Specialized Topics) Question	291-336
	General Medicine (Infections, Acute Care & Specialized Topics) Answer	337-394
CHAP 03.	Paediatrics Question	395-430
	Paediatrics Answer	431-474

****

Click Here to Buy book on Amazon

Syllabus of Paper – I

(i) General Medicine including the following :–

1. Cardiology
2. Respiratory diseases
3. Gastro-intestinal
4. Genito-Urinary
5. Neurology
6. Hematology
7. Endocrinology
8. Metabolic disorders
9. Infections/Communicable Diseases
   - (a) Virus
   - (b) Rickets
   - (c) Bacterial
   - (d) Spirochetal
   - (e) Protozoan
   - (f) Metazoan
   - (g) Fungus
10. Nutrition/Growth
11. Diseases of the skin (Dermatology)
12. Musculoskelatal System
13. Psychiatry
14. General
15. Emergency Medicine
16. Common Poisoning
17. Snake bite
18. Tropical Medicine
19. Critical Care Medicine
20. Emphasis on medical procedures
21. Patho physiological basis of diseases
22. Vaccines preventable diseases and Non vaccines preventable diseases
23. Vitamin deficiency diseases
24. In psychiatry include – Depression, psychosis, anxiety, bipolar diseases and Schizophrenia.

NODIA

(ii) Paediatrics including the following : –

1. Common childhood emergencies,
2. Basic new born care,
3. Normal developmental milestones,
4. Accidents and poisonings in children,
5. Birth defects and counseling including autism,
6. Immunization in children,
7. Recognizing children with special needs and management, and
8. National programmes related to child health.

****

EXAMINATION PAPER 2025

1. Which of the following heart sounds are best heard with the bell of stethoscope ?

I. Opening snap
II. Systolic click
III. Third heart sound
IV. Mid diastolic murmur

Select the correct answer using the code given below:

(a) I and IV
(b) II and III only
(c) III and IV
(d) I, II and III

Ans :

(c) III and IV

The bell of the stethoscope is designed to pick up low-frequency (low-pitched) sounds, while the diaphragm is used for high-frequency (high-pitched) sounds. The Third heart sound (S3) is a low-pitched sound that occurs during the rapid ventricular filling phase of early diastole. Similarly, the Mid-diastolic murmur, such as the characteristic rumble of mitral stenosis, is a low-frequency sound. Both of these are best appreciated by applying the bell lightly to the chest wall, typically at the cardiac apex. In contrast, the Opening Snap (OS) of mitral stenosis is a sharp, high-pitched sound that occurs after S2 and is best heard with the diaphragm. Systolic clicks, whether they are ejection clicks (like in aortic stenosis) or non-ejection clicks (like in mitral valve prolapse), are also high-frequency events. Therefore, the only two options that represent low-pitched sounds best heard with the bell are the third heart sound (III) and the mid-diastolic murmur (IV).

2. Consider the following statements for diagnosing ventricular aneurysm in a patient with recent myocardial infarction:

I. Paradoxical impulse on chest wall
II. Persistent ST elevation on ECG
III. Unusual bulge from cardiac silhouette on X-ray
IV. Presence of pulsus paradoxsus

Which of the above are correct?

(a) I and II only
(b) I and IV
(c) I, II and III
(d) II, III and IV

Ans :

(c) I, II and III

A ventricular aneurysm is a complication of a transmural myocardial infarction, where a thinned, fibrotic, and dyskinetic segment of the ventricle wall bulges outward. Its diagnosis is based on a constellation of clinical and imaging findings. A paradoxical impulse on the chest wall (I), which moves outward during systole when the rest of the ventricle contracts, is a classic physical finding. On an electrocardiogram (ECG), the most characteristic finding is persistent ST-segment elevation (II) in the leads corresponding to the infarct, weeks to months after the acute event. This occurs due to the persistent abnormal electrical potential from the scarred, non-contractile tissue. A chest X-ray may also be suggestive, showing an unusual bulge or altered contour of the cardiac silhouette (III). Pulsus paradoxus (IV), which is an exaggerated drop in systolic blood pressure (>10 mmHg) during inspiration, is not a feature of ventricular aneurysm. Instead, it is a hallmark of cardiac tamponade and is also seen in severe obstructive lung disease and constrictive pericarditis. Therefore, statements I, II, and III are the correct diagnostic features.

3. Which one of the following statements is correct for subcutaneous nodules in Rheumatic fever?

(a) They are present over flexor aspect of forearm
(b) They are painful tender nodules
(c) The usual size of these nodules is 3-5 cm
(d) They typically appear more than 3 weeks after onset of other clinical manifestations

Ans :

(d) They typically appear more than 3 weeks after onset of other clinical manifestations

Subcutaneous nodules are a major Jones criterion for acute rheumatic fever (ARF). These nodules

Downloaded from www.pdf.tube

are firm, mobile, and characteristically painless. Option (d) is the correct statement because these nodules are a late manifestation of the disease. They usually appear several weeks (more than 3 weeks) after the onset of carditis or polyarthritis, often correlating with the presence of significant rheumatic carditis. Option (a) is incorrect because the nodules are typically found over extensor surfaces and bony prominences, such as the elbows, knees, ankles, and occiput, not the flexor aspect of the forearm. Option (b) is incorrect; a key diagnostic feature is that these nodules are painless and non-tender, which helps distinguish them from other conditions like rheumatoid arthritis. Option (c) is also incorrect, as the nodules are typically small, usually ranging in size from 0.5 to 2 cm. Nodules of 3-5 cm would be unusually large for ARF.

4. Which one of the following is correct with regard to Carey Coombs murmur?
(a) Soft systolic murmur due to mitral regurgitation
(b) Soft mid-diastolic murmur due to mitral valvulitis
(c) Harsh early diastolic murmur due to aortic regurgitation
(d) Blowing late systolic murmur due to aortic stenosis

Ans :

(b) Soft mid-diastolic murmur due to mitral valvulitis
The Carey Coombs murmur is a specific cardiac finding associated with the acute carditis of rheumatic fever. It is correctly described as a soft, low-pitched, mid-diastolic murmur that is best heard at the cardiac apex. This murmur is not caused by a fixed, structural valve stenosis. Instead, it is generated by the acute inflammation and edema of the mitral valve leaflets (mitral valvulitis). This swelling of the leaflets creates a temporary, relative obstruction to blood flow from the left atrium into the left ventricle during the diastolic filling phase. This murmur is often transient and typically resolves as the acute inflammation of the valve subsides with treatment. Option (a) is incorrect; the murmur of mitral regurgitation is pansystolic. Option (c) describes the murmur of aortic regurgitation. Option (d) incorrectly describes both the timing and quality of an aortic stenosis murmur, which is typically a harsh ejection-systolic murmur.

5. Which of the following statements is correct regarding the Opening Snap (OS) in a patient of mitral stenosis?
(a) OS is best heard with the bell of stethoscope
(b) Intensity of OS becomes louder when the valve is calcified
(c) OS moves closer to the second sound (S2) as the stenosis becomes more severe
(d) OS is best heard at the second left intercostal space

Ans :

(c) OS moves closer to the second sound (S2) as the stenosis becomes more severe
The Opening Snap (OS) is a high-pitched, sharp sound that occurs in early diastole due to the sudden tensing of the stenotic but still mobile mitral valve leaflets as they open. The timing of the OS relative to the second heart sound (S2) is a crucial indicator of the severity of mitral stenosis (MS). As the stenosis becomes more severe, the pressure in the left atrium increases. This higher atrial pressure forces the mitral valve to open earlier in diastole. Consequently, the OS moves closer to S2. A short S2-OS interval indicates severe MS. Option (a) is incorrect because the OS is a high-pitched sound and is therefore best heard with the diaphragm of the stethoscope, not the bell. Option (b) is incorrect; as the valve becomes more calcified and rigid, its mobility decreases, causing the OS to become softer and eventually disappear. A loud OS implies a pliable, non-calcified valve. Option (d) is incorrect; the OS is best heard between the apex and the left sternal border, not typically at the second left intercostal space (pulmonic area).

6. Which one of the following responses to intravenous adenosine is correctly matched ?
Arrhythmia - Response
(a) Atrial fibrillation - Termination
(b) Atrio-ventricular nodal reentrant tachycardia - Termination
(c) Ventricular tachycardia - Termination and complete recovery
(d) Atrial flutter - Termination and complete recovery

Ans :

NODIA

(b) Atrio-ventricular nodal reentrant tachycardia - Termination

Intravenous adenosine is a very short-acting drug that primarily works by blocking conduction through the atrioventricular (AV) node. Its main diagnostic and therapeutic use is for supraventricular tachycardias (SVTs) that depend on the AV node for their continuation. Atrio-ventricular nodal reentrant tachycardia (AVNRT) is the most common type of paroxysmal SVT, and its re-entrant circuit involves the AV node. Adenosine breaks this circuit, resulting in abrupt termination of the tachycardia and a return to sinus rhythm. Option (a) is incorrect; in atrial fibrillation, adenosine will only temporarily slow the ventricular rate by blocking AV conduction but will not terminate the fibrillation itself. Option (d) is similar; in atrial flutter, adenosine will block the AV node, unmasking the underlying "sawtooth" flutter waves on the ECG, but it will not terminate the flutter. Option (c) is incorrect; most forms of ventricular tachycardia (VT) originate below the AV node and are not affected by adenosine. Using adenosine for VT can be dangerous (though some rare, idiopathic VTs may respond). Therefore, the only arrhythmia listed that is reliably terminated by adenosine is AVNRT.

7. Consider the following steps for using a metered dose inhaler (MDI) :

I. Incline the head backward to minimize oropharyngeal deposi- tion
II. Remove the cap and shake the inhaler
III. Breathe out gently and place the mouthpiece into the mouth
IV. Hold the breath for 10 seconds
V. Simultaneously, begin a slow deep inspiration, depress the canister and continue to inhale

Which one of the following is the correct sequence of using MDI?

(a) III, II, I, V, IV
(b) II, I, IV, III, V
(c) II, III, I, V, IV
(d) III, I, II, IV, V

Ans :

(c) II, III, I, V, IV

The correct sequence for using a metered-dose inhaler (MDI) is critical for ensuring optimal drug delivery to the lungs. The process begins with preparation: (II) Remove the cap and shake the inhaler to ensure the medication and propellant are properly mixed. Next, the patient prepares their lungs: (III) Breathe out gently and place the mouthpiece into the mouth. This step empties the lungs to allow for a deep inspiration. Then, the patient positions their head: (I) Incline the head backward to minimize oropharyngeal deposition, which helps straighten the airway. The most coordinated step is next: (V) Simultaneously, begin a slow deep inspiration, depress the canister and continue to inhale. This coordination is key to drawing the aerosolized medication deep into the lungs. Finally, to allow the medication to settle on the airway surfaces, the patient must: (IV) Hold the breath for 10 seconds (or as long as comfortably possible). The sequence II, III, I, V, IV correctly orders these actions for effective MDI use. The other options present an incorrect and less effective order of operations.

8. Under the Stepwise Approach to the management of Bronchial Asthma, which one of the following is the correct initial treatment at Step 1 for a patient diagnosed with Asthma ?

(a) Low dose inhaled corticosteroid only
(b) Low dose inhaled corticosteroid plus oral corticosteroid
(c) Low dose inhaled corticosteroid plus long acting anti-muscarinic agents
(d) Low dose inhaled corticosteroid plus leukotriene antagonist

Ans :

(a) Low dose inhaled corticosteroid only

Recent global guidelines for asthma management, such as those from GINA (Global Initiative for Asthma), have shifted away from using short-acting beta-agonists (SABA) alone, even for mild, intermittent asthma (Step 1). This change is due to evidence that SABA-only treatment does not address the underlying airway inflammation and can be associated with adverse outcomes. The current recommendation for Step 1 (patients with infrequent symptoms, i.e., less than twice a month) is to use an as-needed low-dose inhaled corticosteroid (ICS)-formoterol combination. However, if that is not available, the alternative is to take a low-dose inhaled corticosteroid whenever a SABA is taken. Among the choices provided, "Low dose inhaled corticosteroid

Click Here to Buy book on Amazon

only" is the most appropriate foundational therapy. Options (b), (c), and (d) all represent "add-on" therapies that are reserved for Step 2 or higher, once symptoms are more persistent and not controlled by low-dose ICS alone. Oral corticosteroids (b) are reserved for severe exacerbations or Step 5.
Note: The question's options are slightly simplified. Modern guidelines emphasize as-needed ICS or ICS-LABA for Step 1. Given the choices, (a) is the best fit as the base controller medication.

9. A 62-year old male chronic smoker has been diagnosed with Chronic Obstructive Pulmonary Disease (COPD). On pulmonary function testing, the ratio of Forced Expiratory Volume in 1 second (FEV1) to Forced Vital Capacity (FVC) was 0.6 and FEV1 was 70% of predicted. What is the severity of airflow obstruction in this patient as per GOLD criteria ?
(a) Stage I - Mild
(b) Stage II - Moderate
(c) Stage III- Severe
(d) Stage IV - Very severe

Ans :

(b) Stage II - Moderate
The Global Initiative for Chronic Obstructive Lung Disease (GOLD) criteria are used to diagnose and stage COPD. The first step is establishing the diagnosis, which requires a post-bronchodilator FEV1/FVC ratio of < 0.70 (or $< 70\%$). This patient's ratio is 0.6, which confirms the diagnosis of airflow obstruction. The second step is to grade the severity of the obstruction based on the post-bronchodilator FEV1 % predicted.
The GOLD stages for severity are:
1. GOLD 1 (Mild): FEV1 $\geq 80\%$ predicted
2. GOLD 2 (Moderate): $50\% \leq$ FEV1 $< 80\%$ predicted
3. GOLD 3 (Severe): $30\% \leq$ FEV1 $< 50\%$ predicted
4. GOLD 4 (Very Severe): FEV1 $< 30\%$ predicted

This patient's FEV1 is 70% of predicted. This value falls into the range of 50% to < 80%. Therefore, according to the GOLD criteria, the patient has Stage II - Moderate airflow obstruction. Option (a) is incorrect because FEV1 is < 80%. Options (c) and (d) are incorrect because the FEV1 is much higher than the thresholds for severe or very severe disease.

10. Which one of the following correctly denotes the inheritance pattern of cystic fibrosis ?
(a) Autosomal Dominant
(b) Autosomal Recessive
(c) X-linked Dominant
(d) X-linked Recessive

Ans :

(b) Autosomal Recessive
Cystic fibrosis (CF) is one of the most common life-limiting genetic disorders, particularly in populations of Northern European descent. It follows an autosomal recessive pattern of inheritance. This means that for an individual to be affected by the disease, they must inherit two copies of the mutated gene, one from each parent. The gene responsible for CF is the CFTR (Cystic Fibrosis Transmembrane conductance Regulator) gene, located on chromosome . Individuals who inherit only one copy of the mutated CFTR gene are "carriers." They are typically asymptomatic but can pass the mutated gene to their offspring. If two carriers have a child, there is a 25% chance the child will have CF (inheriting both mutant copies), a 50% chance the child will be a carrier (inheriting one mutant copy), and a 25% chance the child will be unaffected (inheriting two normal copies). Options (a), (c), and (d) are incorrect as they describe different modes of inheritance that do not apply to CF.

11. Which of the following conditions are contraindications for noninvasive positive-pressure ventilation in patients with respiratory failure?
I. Craniofacial abnormalities
II. Significant burns
III. Respiratory failure with $PaCO_2$ of 60 mm Hg
IV. Cardiovascular instability
Select the correct answer using the code given below:
(a) I, II and III
(b) I, II and IV
(c) I, III and IV
(d) II, III and IV

Ans :

(b) I, II and IV
Noninvasive positive-pressure ventilation

Downloaded from www.pdf.tube

(NIPPV) is a valuable tool for respiratory failure, but its success depends on a cooperative patient with a patent airway and the ability to form a good mask seal. Craniofacial abnormalities (I) or trauma can make it impossible to achieve an effective seal, rendering NIPPV ineffective and leaking. Significant burns (II), especially to the face, also preclude the application of a tight-fitting mask and are a clear contraindication. Cardiovascular instability (IV), such as shock or uncontrolled arrhythmias, is another contraindication. NIPPV increases intrathoracic pressure, which can reduce venous return (preload) and worsen hypotension. Such unstable patients require the definitive airway control and hemodynamic management provided by invasive mechanical ventilation. In contrast, respiratory failure with a $PaCO_2$ of 60 mm Hg (III) (hypercapnic respiratory failure) is a primary indication for NIPPV, particularly in the context of a COPD exacerbation. NIPPV helps unload the respiratory muscles and improve ventilation, leading to a reduction in $PaCO_2$. Therefore, the contraindications listed are I, II, and IV.

12. Which one of the following terms denotes the extensive sclerosis of the skin of the chest wall which restricts chest wall movement and is seen as a rare complication of systemic sclerosis ?

(a) Flail Chest
(b) Hidebound Chest
(c) Barrel Chest
(d) Pigeon Chest

Ans :

(b) Hidebound Chest

Systemic sclerosis (scleroderma) is an autoimmune connective tissue disease characterized by widespread fibrosis of the skin and internal organs. In rare cases, the skin and subcutaneous tissues of the chest wall can become so thickened, hardened, and fibrosed (sclerotic) that they severely restrict the normal expansion of the thorax during breathing. This condition is descriptively termed "Hidebound Chest". The skin becomes bound down to the underlying structures, much like a rigid hide, leading to a restrictive ventilatory defect and respiratory failure. Option (a), Flail Chest, is an acute, traumatic condition caused by multiple rib fractures, leading to paradoxical movement of a chest wall segment. Option (c), Barrel Chest, describes an increased anteroposterior diameter of the chest, classically seen in patients with emphysema due to chronic air trapping. Option (d), Pigeon Chest (pectus carinatum), is a congenital or acquired deformity where the sternum protrudes outward.

NODIA

13. Consider the following pleural fluid analysis:

PH	7.6
Pleural fluid protein	0.5 g/dL
Serum total protein	6.5 g/dL
Pleural fluid LDH	100 U/L
Serum LDH	300 U/L

What is the most likely diagnosis ?

(a) Pancreatitis
(b) Myxedema
(c) Sarcoidosis
(d) Rheumatoid arthritis

Ans :

(b) Myxedema

To determine the cause of the pleural effusion, we first apply Light's criteria to classify it as transudative or exudative.

1. Pleural fluid protein / Serum protein > 0.5?

   $0.5/6.5 = 0.077$ (which is 5)

2. Pleural fluid LDH / Serum LDH > 0.6?

   $100/300 = 0.33$ (which is ≤ 0.6)

3. Pleural fluid LDH $> 2/3$ upper limit of normal serum LDH?

Assuming the upper limit is $\sim 200 - 250$ U/L, 100 U/L is not greater than 2/3 of this.

Since none of the criteria are met, this is a transudative effusion. Transudates are caused by systemic factors altering hydrostatic or oncotic pressure (e.g., heart failure, cirrhosis, nephrotic syndrome, myxedema) rather than local inflammation.

Pancreatitis (a) , Sarcoidosis (c) , and Rheumatoid arthritis (d) all typically cause exudative effusions due to inflammation. Myxedema (b), or severe hypothyroidism, is a well-known, though uncommon, cause of transudative pleural effusions (and other serous effusions like pericardial). The high pH (7.6) is also unusual and can be seen in some transudates, whereas inflammatory effusions (like rheumatoid) often

have a very low pH. Given the clear transudative profile, myxedema is the most likely diagnosis among the choices.

14. 'Masson Bodies' formed due to proliferation of immature collagen are a characteristic histopathological finding seen in which of the following conditions?
(a) Lymphocytic Interstitial Pneumonia
(b) Cryptogenic Organizing Pneumonia
(c) Desquamative Interstitial Pneu- monia
(d) Respiratory Bronchiolitis

Ans :

(b) Cryptogenic Organizing Pneumonia
Masson bodies are the classic, though not entirely specific, histopathological hallmark of Cryptogenic Organizing Pneumonia (COP), formerly known as Bronchiolitis Obliterans Organizing Pneumonia (BOOP). These bodies are not true granulomas but are distinctive polypoid plugs of immature, loose-staining collagen and fibroblasts (myofibroblasts) mixed with inflammatory cells. They are found within the lumina of the alveoli, alveolar ducts, and respiratory bronchioles, representing an organized inflammatory response to lung injury. While Masson bodies are characteristic of COP, they can also be seen in other conditions, such as hypersensitivity pneumonitis, drug reactions, and connective tissue diseases. Among the choices, however, they are the defining feature of COP. Lymphocytic Interstitial Pneumonia (LIP) is characterized by a diffuse infiltrate of lymphocytes. Desquamative Interstitial Pneumonia (DIP) features alveoli filled with numerous macrophages. Respiratory Bronchiolitis (RB-ILD) involves macrophage accumulation within respiratory bronchioles and is strongly associated with smoking.

15. Consider the following statements regarding respiratory function in old age:
I. There is increasing ventilation- perfusion mismatch
II. There is increased ventilatory response to hypoxia and hyper- capnia
III. There is a decline in maximum oxygen uptake leading to reduc- tion in cardiorespiratory reserve
IV. There is decline in the Forced Expiratory Volume to Forced Vital Capacity ratio (FEV1/FVC) by around 0.2% per year after the forties
Which of the statements given above are correct?
(a) I, II and III
(b) I, II and IV
(c) II, III and IV
(d) I, III and IV

Ans :

(d) I, III and IV
The aging process causes several predictable changes in the respiratory system. Statement I is correct; due to changes in elasticity and closing capacity of small airways, there is an increasing ventilation-perfusion (V/Q) mismatch, which contributes to a lower resting PaO_2. Statement III is correct; a general decline in maximum oxygen uptake (VO_2 max) occurs with age due to combined changes in pulmonary, cardiovascular, and muscular function, leading to a reduced cardiorespiratory reserve. Statement IV is correct; lung elasticity decreases with age, leading to a faster decline in FEV1 compared to FVC. This results in a progressive decline in the FEV1/FVC ratio (though the rate cited, 0.2% per year, is modest; other estimates are higher). Statement II is incorrect; a key feature of aging is a blunted or decreased ventilatory response to both hypoxia and hypercapnia. This reduced chemosensitivity makes elderly individuals more vulnerable to respiratory failure. Therefore, the correct statements are I, III, and IV.

16. Which one of the following statements is correct in respect of pulmonary involvement in rheumatoid disease?
(a) Rheumatoid pulmonary nodules are usually asymptomatic and detected incidentally on imaging
(b) Rheumatoid pulmonary nodules are often solitary and located near hilum
(c) Pleural effusion in these patients is transudative and usually bilateral
(d) Combination of pleural effusion and pneumoconiosis in these patients is known as Caplan syndrome

Ans :

(a) Rheumatoid pulmonary nodules are usually asymptomatic and detected incidentally on imaging
Rheumatoid arthritis (RA) can affect multiple parts of the respiratory system, including

Click Here to Buy book on Amazon

the pleura, lung parenchyma, and airways. Rheumatoid pulmonary nodules are a specific manifestation. Statement (a) is correct: these nodules are typically asymptomatic and discovered incidentally on chest imaging. They can be solitary or multiple. Statement (b) is incorrect; while they can be solitary, they are more often multiple and are characteristically found in the periphery of the lungs, often subpleurally, not near the hilum. Statement (c) is incorrect; pleural effusion in RA is a classic example of an exudative effusion, not transudative. It is characterized by very low glucose levels, low pH, and high LDH. It is also typically unilateral, not bilateral. Statement (d) is incorrect; Caplan syndrome is defined as the combination of rheumatoid pulmonary nodules (not pleural effusion) and pneumoconiosis (like coal worker's pneumoconiosis) in a patient with RA.

17. Which one of the following conditions is a complication of bacterial pharyngitis involving extension of infection into the internal jugular veins leading to thrombosis and metastatic dispersal of the organism?
(a) Cystic Fibrosis
(b) Chronic Pulmonary Aspergillosis
(c) Lemierre syndrome
(d) Wegener's granulomatosis

Ans :

(c) Lemierre syndrome
Lemierre syndrome is the correct answer. It is a rare but life-threatening complication that typically begins as a bacterial pharyngitis or tonsillitis, most commonly caused by the anaerobic bacterium Fusobacterium necrophorum. The infection spreads from the pharynx into the lateral pharyngeal space and causes septic thrombophlebitis (thrombosis with infection) of the internal jugular vein. From this site, septic emboli can break off and travel (metastatic dispersal) to distant sites, most commonly the lungs, causing septic pulmonary infarcts, abscesses, and empyema. It often presents in otherwise healthy adolescents and young adults. Cystic Fibrosis is a genetic disease affecting chloride transport. Chronic Pulmonary Aspergillosis is a fungal lung infection. Wegener's granulomatosis (now Granulomatosis with Polyangiitis) is a systemic autoimmune vasculitis. None of these other options match the specific pathophysiology described in the question.

18. A 42-year old man with history of alcohol dependency presents with progressive abdominal distension. Abdominal examination reveals a shifting dullness. Which one of the following is the most appropriate drug to relieve this abdominal distension?
(a) Octreotide
(b) Propranolol
(c) Lactulose
(d) Spironolactone

Ans :

(d) Spironolactone
The patient's history of alcohol dependency combined with progressive abdominal distension and shifting dullness is classic for ascites, most likely secondary to alcoholic cirrhosis and portal hypertension. The primary medical management for ascites involves sodium restriction and diuretics. Spironolactone, an aldosterone antagonist, is the first-line and most appropriate drug for this purpose. Cirrhosis leads to secondary hyperaldosteronism, which promotes sodium and water retention. Spironolactone directly counteracts this mechanism, promoting diuresis and relief of ascites. It is often used in combination with a loop diuretic like furosemide. Propranolol is a beta-blocker used in cirrhosis to prevent variceal bleeding, not to treat ascites. Lactulose is used to treat hepatic encephalopathy. Octreotide is a somatostatin analog used primarily for acute variceal bleeding. Therefore, to relieve the ascites (abdominal distension), spironolactone is the correct initial drug.

19. Which one of the following is the investigation of choice for diagnosing the presence of stones in the gall-bladder?
(a) Transabdominal ultrasound
(b) Erect X ray of abdomen
(c) Capsule endoscopy
(d) Computed Tomography

Ans :

(a) Transabdominal ultrasound
The investigation of choice for diagnosing gallstones (cholelithiasis) is transabdominal ultrasound. It is a highly sensitive (>95%) and specific, non-invasive, widely available, and

NODIA

relatively inexpensive test. On ultrasound, gallstones typically appear as echogenic (bright) foci within the gallbladder lumen, which cast a distinct acoustic shadow (a dark streak) behind them. They are also usually mobile, changing position when the patient moves. Option (b), Erect X-ray of the abdomen, is not a good choice because only 10-15% of gallstones are calcified and radiopaque; the majority are cholesterol stones and are radiolucent (invisible) on X-ray. Option (d), Computed Tomography (CT), can detect gallstones (especially calcified ones) but is less sensitive than ultrasound for most stones and involves ionizing radiation and higher cost. It is not the primary diagnostic tool for this purpose. Option (c), Capsule endoscopy, is used to visualize the small intestine and has no role in diagnosing gallbladder disease.

20. Which one of the following biologic agents used in the treatment of inflammatory Bowel Disease acts by inhibiting the enzyme 'Janus Kinase'?
(a) Infliximab
(b) Adalimumab
(c) Vedolizumab
(d) Tofacitinib

Ans :

(d) Tofacitinib
The drugs used for Inflammatory Bowel Disease (IBD) target different parts of the inflammatory cascade. Tofacitinib is the correct answer. It is not a biologic agent (which are large-molecule proteins) but rather a small-molecule drug. It works by inhibiting the Janus Kinase (JAK) enzymes (specifically JAK1, JAK2, and JAK3). JAK enzymes are intracellular signaling molecules that are crucial for the function of numerous pro-inflammatory cytokines. By blocking them, tofacitinib reduces the inflammatory response. Infliximab and Adalimumab are biologic agents, but they are monoclonal antibodies that work by blocking Tumor Necrosis Factor-alpha (TNF-α), a key pro-inflammatory cytokine. Vedolizumab is also a biologic (monoclonal antibody) that works differently; it is an integrin antagonist ($\alpha4\beta7$) that prevents lymphocytes from migrating from the bloodstream into the gut tissue (gut-specific anti-inflammatory action).

21. Melanosis coli, which occurs due to long term consumption of stimulant laxatives, presents as brown dis- colouration of colonic mucosa due to deposition of which one of the following pigments?
(a) Melanin
(b) Haemosiderin
(c) Lipofuscin
(d) Haemoglobin

Ans :

(c) Lipofuscin
Melanosis coli is a benign condition characterized by a dark brown to black pigmentation of the colonic mucosa. It is most commonly associated with the chronic use of anthraquinone-based stimulant laxatives (e.g., senna, cascara). The "melanosis" part of the name is actually a misnomer, as the pigment involved is not melanin. Instead, the laxatives induce apoptosis (programmed cell death) in the colonic epithelial cells. These apoptotic bodies are then engulfed by macrophages within the lamina propria. The pigment observed is lipofuscin, a "wear-and-tear" pigment derived from the peroxidation of lipids, which accumulates within these macrophages. This gives the mucosa its characteristic dark-stippled or "leopard-spotting" appearance on colonoscopy. Haemosiderin is an iron-storage pigment, and haemoglobin is the oxygen-carrying protein in red blood cells; neither is responsible for melanosis coli.

22. Consider the following with regard to Gilbert Syndrome:
I. Autosomal recessive trait of a mutation in gene for UDP- glucuronyl transferase enzyme
II. Elevation of unconjugated bili- rubin
III. No stigmata of chronic liver disease other than jaundice
IV. Early Liver biopsy recommended in patients with possible Gilbert Syndrome
Which of the above are correct?
(a) I and II only
(b) II and III only
(c) I, II and III
(d) III and IV

Ans :

(c) I, II and III
Gilbert Syndrome is a common and benign hereditary condition of bilirubin metabolism. Statement I is correct: It is typically inherited as an autosomal recessive trait (though sometimes

Downloaded from www.pdf.tube

described as autosomal dominant with reduced penetrance). The genetic basis is a mutation, most commonly a (TA) dinucleotide repeat in the promoter region of the UGT1A1 gene, which codes for the enzyme UDP-glucuronyl transferase. This mutation reduces the enzyme's activity. Statement II is correct: This reduced enzyme activity impairs the liver's ability to conjugate bilirubin (make it water-soluble). This leads to a mild, fluctuating elevation of unconjugated (indirect) bilirubin in the blood, typically < 3-4 mg/dL. Statement III is correct: Gilbert Syndrome is a benign condition. Affected individuals are otherwise healthy and have normal liver function tests. They show no other stigmata of chronic liver disease (like ascites, splenomegaly, or coagulopathy), with jaundice being the only finding, often noticed during periods of stress, fasting, or illness. Statement IV is incorrect: A liver biopsy is not recommended or necessary for diagnosing Gilbert Syndrome. The diagnosis is usually made clinically based on isolated unconjugated hyperbilirubinemia with normal liver enzymes and no evidence of hemolysis. Therefore, statements I, II, and III are correct.

23. The single most important treatment and prognostic factor in alcohol-related liver disease is
(a) N-acetyl cysteine
(b) Cessation of alcohol consumption
(c) Liver transplantation
(d) High dose vitamin E

Ans :

(b) Cessation of alcohol consumption
The cornerstone of management and the most critical determinant of long-term outcome in patients with alcohol-related liver disease (ARLD) is complete and permanent cessation of alcohol consumption. Continued alcohol use accelerates the progression of liver disease, from steatosis to alcoholic hepatitis, fibrosis, and ultimately cirrhosis, leading to complications like portal hypertension, ascites, variceal bleeding, and hepatocellular carcinoma. Abstinence is the only intervention that can halt or, in early stages, even reverse the liver damage. Prognosis at any stage of ARLD is significantly better for patients who stop drinking compared to those who continue. While liver transplantation (c) is a treatment for end-stage liver disease, it is an option only for those who have achieved a significant period of abstinence. N-acetyl cysteine (a) is the antidote for paracetamol (acetaminophen) overdose, not ARLD. High-dose vitamin E (d) has been studied in non-alcoholic steatohepatitis (NASH), but its role in ARLD is not established as a primary treatment.

24. A 40 year old man with a known case of chronic pancreatitis presents to the OPD with complaint of skin pigmentation over the abdomen. The patient gives a history of chronic use of a hot water bottle to relieve the abdominal discomfort. Which one of the following is the most appropriate diagnosis?
(a) Erythema infectiosum
(b) Erythema marginatum
(c) Erythema nodosum
(d) Erythema ab igne

Ans :

(d) Erythema ab igne
The diagnosis is Erythema ab igne, which literally means "redness from fire." This is a specific skin condition characterized by a reticulated (net-like), hyperpigmented, and sometimes erythematous rash. It is caused by chronic and repeated exposure to moderate heat or infrared radiation, which is insufficient to cause a burn but enough to induce changes in the skin over time. The patient's history of chronic use of a hot water bottle on his abdomen to relieve pain from chronic pancreatitis is the classic etiology. The heat exposure damages superficial blood vessels and leads to the deposition of hemosiderin and melanin, creating the characteristic fishnet-like pigmentation. Erythema infectiosum (a) (Fifth disease) is a viral illness (Parvovirus B19) causing a "slapped cheek" rash. Erythema marginatum (b) is a fleeting, ring-shaped rash associated with acute rheumatic fever. Erythema nodosum (c) presents as tender, red nodules, usually on the shins, and is a septal panniculitis.

25. Which one of the following is correct regarding arginine vasopressin antagonist Tolvaptan?
(a) It is useful in hypovolemic hypo- natremia
(b) It antagonises the V_1 receptor
(c) It should be used for at least 1 year
(d) It is an oral drug

NODIA

Ans :

(d) It is an oral drug
Tolvaptan is a "vaptan" class drug, which acts as an antagonist to the arginine vasopressin (AVP) receptors. Its key correct characteristic is that it is an oral drug, making it suitable for outpatient or continued inpatient management of hyponatremia. It is a selective antagonist, meaning it specifically blocks the V2 receptor in the renal collecting ducts, not the V1 receptor (which is involved in vasopressor-desmopressin). By blocking the V2 receptor, it prevents AVP (also known as antidiuretic hormone) from inserting aquaporin-2 water channels, thus promoting free water excretion (aquaresis) and raising serum sodium levels. Option (a) is incorrect; tolvaptan is indicated for euvolemic (like SIADH) and hypervolemic (like heart failure or cirrhosis) hyponatremia. It is contraindicated in hypovolemic hyponatremia, where the primary treatment is fluid resuscitation with isotonic saline. Option (c) is also incorrect; its use is typically for a short duration (e.g., < 30 days) due to concerns about hepatotoxicity with long-term use.

26. Which one of the following conditions is caused by mutations in the gene that encodes the sodium-potassium- 2-chloride cotransporter (NKCC2), and presents with sodium wasting, hypokalaemia, hypomagnesaemia and hypercalciuria?
(a) Alport syndrome
(b) Bartter syndrome
(c) Fanconi syndrome
(d) Gitelman syndrome

Ans :

(b) Bartter syndrome
Bartter syndrome is the correct answer. It is a group of autosomal recessive renal tubulopathies characterized by salt wasting, hypokalemic metabolic alkalosis, and hypercalciuria (with a risk of kidney stones). The most common form (antenatal or classic Bartter) is caused by inactivating mutations in the gene for the sodium-potassium-2-chloride cotransporter (NKCC2), which is located in the thick ascending limb (TAL) of the loop of Henle. This transporter is responsible for reabsorbing a significant portion of filtered salt. Its dysfunction mimics the effect of a loop diuretic (like furosemide), leading to sodium wasting, hypokalaemia (due to increased distal delivery of sodium), and hypercalciuria (as the positive lumen potential that drives paracellular calcium reabsorption is lost). Gitelman syndrome (d) is similar but affects the distal convoluted tubule (mimicking a thiazide diuretic) and characteristically causes hypocalciuria. Fanconi syndrome (c) is a generalized proximal tubule dysfunction. Alport syndrome (a) is a hereditary nephritis affecting collagen IV.

27. A 52 year old male has uncontrolled diabetes. Which one of the following tests will help in early detection of nephropathy?
(a) Blood urea level
(b) Serum creatinine level
(c) Ultrasonography
(d) Urine albumin

Ans :

(d) Urine albumin
The earliest clinical sign of diabetic nephropathy is the development of microalbuminuria, which is the persistent excretion of small amounts of albumin in the urine (typically defined as 30-300 mg/day). Therefore, screening for urine albumin (usually via a urine albumin-to-creatinine ratio, or UACR, on a spot sample) is the standard and most sensitive test for the early detection of nephropathy in patients with diabetes. This stage often occurs long before any significant change in glomerular filtration rate (GFR). Serum creatinine (b) and blood urea (a) levels are markers of GFR. They typically do not become elevated until a significant portion of kidney function (often > 50%) has already been lost. Relying on them would mean missing the early window for intervention. Ultrasonography (c) is useful for evaluating kidney size (which may be large in early diabetic nephropathy) and ruling out other structural causes of kidney disease, but it is not a primary screening tool for early functional damage like microalbuminuria.

28. Autosomal dominant mutations in which one of the following genes may cause focal segmental glomerulosclero- sis associated with abnormal genitalia, Wilm's tumour and mental retarda-tion?
(a) WT1
(b) INF2

Click Here to Buy book on Amazon

(c) LMX1B
(d) APOLI

Ans :

(a) WT1
The gene described is WT1 (Wilms Tumor 1). Mutations in the WT1 gene, located on chromosome 11, are responsible for several syndromes that connect kidney disease with urogenital abnormalities and a predisposition to Wilms' tumor. Denys-Drash syndrome, for example, is caused by dominant WT1 mutations and presents with congenital nephropathy (often diffuse mesangial sclerosis or focal segmental glomerulosclerosis, FSGS), abnormal genitalia (pseudohermaphroditism or ambiguous genitalia in XY individuals), and a very high risk of Wilms' tumor. Frasier syndrome is another WT1 mutation syndrome causing FSGS and gonadal dysgenesis. WAGR syndrome (Wilms' tumor, Aniridia, Genitourinary anomalies, and Mental Retardation) is caused by a deletion that includes the WT1 gene. INF2 (b) and APOL1 (d) are other genes associated with hereditary FSGS, but not this specific syndrome. LMX1B (c) mutations cause Nail-Patella Syndrome.

29. Kidney damage and Glomerular Filtration Rate (GFR) value between $15-29\ \mathrm{mL/min/1 \cdot 73\ m^2}$ are found in which stage of Chronic Kidney Disease?
(a) Stage 2 (mild)
(b) Stage 3A (mild to moderate)
(c) Stage 4 (severe)
(d) Stage 5 (kidney failure)

Ans :

(c) Stage 4 (severe)
The stages of Chronic Kidney Disease (CKD) are classified by the Kidney Disease: Improving Global Outcomes (KDIGO) guidelines based on the Glomerular Filtration Rate (GFR). The stages are as follows:
1. Stage 1: GFR $\geq$ 90 $\mathrm{mL/min/1.73\ m^2}$ (with evidence of kidney damage)
2. Stage 2 (Mild): GFR 60-89 $\mathrm{mL/min/1.73\ m^2}$ (with evidence of kidney damage)
3. Stage 3a (Mild to moderate): GFR 45-59 $\mathrm{mL/min/1.73\ m^2}$
4. Stage 3b (Moderate to severe): GFR 30-44 $\mathrm{mL/min/1.73\ m^2}$
5. Stage 4 (Severe): GFR 15-29 $\mathrm{mL/min/1.73\ m^2}$
6. Stage 5 (Kidney failure): GFR < 15 $\mathrm{mL/min/1.73\ m^2}$ or on dialysis

The GFR value given in the question is $15-29\ \mathrm{mL/min/1.73\ m^2}$. This range corresponds directly to Stage 4 (severe) CKD. This stage signifies a severe reduction in GFR and is typically when patients are prepared for renal replacement therapy (dialysis or transplantation).

30. Which one of the following hereditary tubulo-interstitial kidney diseases has an autosomal recessive mode of inheritance?
(a) Medullary cystic kidney disease type 1
(b) Medullary cystic kidney disease type 2
(c) Nephronophthisis
(d) Juvenile hyperuricaemic nephro- pathy

NODIA

Ans :

(c) Nephronophthisis
Hereditary tubulointerstitial kidney diseases (TKDs) are a group of disorders that primarily affect the renal tubules and interstitium, leading to progressive chronic kidney disease. The inheritance patterns are key to classifying them. Nephronophthisis (NPHP) is the classic example of an autosomal recessive TKD. It is the most common genetic cause of end-stage renal disease in children and young adults and is caused by mutations in NPHP genes, which code for ciliary proteins. In contrast, Medullary cystic kidney disease (MCKD) type 1 (caused by MUC1 mutations) and MCKD type 2 (caused by UMOD mutations, encoding uromodulin) are both autosomal dominant. Juvenile hyperuricemic nephropathy (also part of the UMOD-related kidney disease spectrum) is also inherited in an autosomal dominant manner. Therefore, nephronophthisis is the correct autosomal recessive condition among the choices.

31. Which of the following findings in a patient are suggestive of acute nephritis ?
I. Hematuria
II. Oliguria
III. Reduced size of both kidneys
IV. Edema
Select the correct answer using the code given below:
(a) I and III
(b) III and IV
(c) I and II only
(d) I, II and IV

Ans :

(d) I, II and IV

Acute nephritis, or the acute nephritic syndrome, is a clinical syndrome defined by the abrupt onset of glomerular inflammation. The classic findings are a direct result of this inflammation and damage to the glomerular filtration barrier. Hematuria (I) is a hallmark, often presenting as macroscopic (visibly red or "cola-colored") urine, and is caused by red blood cells leaking through the damaged glomeruli. Oliguria (II) (reduced urine output) occurs because the inflammation severely reduces the glomerular filtration rate (GFR). Edema (IV) (swelling), particularly periorbital and in the lower extremities, is also a key feature. It results from the reduced GFR leading to salt and water retention by the kidneys. Reduced size of both kidneys (III) is a finding characteristic of chronic kidney disease, where progressive fibrosis and scarring lead to atrophy. In acute nephritis, the kidneys are typically normal-sized or may even be slightly enlarged due to inflammation and edema. Therefore, the findings suggestive of acute nephritis are hematuria, oliguria, and edema (I, II, and IV).

32. A 35 year old male presents with increased urine output. On evaluation, his urinary output was around 4L/day; urinary osmolality was 200 mosmol/L Which of the following are various differential diagnosis ?

I. Psychogenic polydipsia
II. Solute diuresis
III. Central diabetes insipidus
IV. Nephrogenic diabetes insipidus

Select the correct answer using the code given below :

(a) I, III and IV
(b) I and III only
(c) II and IV
(d) I and IV only

Ans :

(a) I, III and IV

The patient presents with polyuria (urine output > 3L/day; here it is 4L/day) and a dilute urine (urine osmolality < 300 mosmol/L; here it is 200 mosmol/L). This clinical picture indicates a state of water diuresis, where the kidneys are excreting an excess of free water. This can be caused by three main conditions:

1. Central diabetes insipidus (III): A deficiency of antidiuretic hormone (ADH) from the pituitary.
2. Nephrogenic diabetes insipidus (IV): The kidneys are resistant to the effects of ADH.
3. Psychogenic polydipsia (I) (or primary polydipsia): Excessive water intake suppresses ADH release, leading to a compensatory water diuresis.

All three of these conditions result in polyuria with dilute urine. Solute diuresis (II), such as the osmotic diuresis seen in uncontrolled diabetes mellitus (due to glucose) or after high-protein feeding (due to urea), would also cause polyuria, but the urine would be is-osmotic or hyper-osmotic (urine osmolality > 300 mosmol/L), not dilute. Since the patient's urine osmolality is low (200 mosmol/L), solute diuresis is unlikely, and the differential diagnosis includes primary polydipsia, central DI, and nephrogenic DI (I, III, and IV).

33. Contralateral Homonymous upper quadrantanopia is the type of visual loss seen when the lesion is located at which one of the following anatomical locations?

(a) Frontal lobe
(b) Temporal lobe
(c) Parietal lobe
(d) Occipital lobe

Ans :

(b) Temporal lobe

The visual pathway from the lateral geniculate nucleus (LGN) fans out as optic radiations to reach the primary visual cortex in the occipital lobe. These radiations are split. The fibers carrying information from the inferior retina (which sees the superior visual field) travel through the temporal lobe in a path known as Meyer's loop. The fibers carrying information from the superior retina (which sees the inferior visual field) travel more directly back through the parietal lobe. A lesion in the temporal lobe that interrupts Meyer's loop will therefore cause a loss of the superior visual field on the opposite side. Since the pathways are post-chiasmatic, the defect will be homonymous (affecting the same side of the visual field in both eyes). Thus, a temporal lobe lesion causes a contralateral homonymous upper quadrantanopia (a "pie in

NODIA

the sky" defect). Conversely, a parietal lobe lesion causes a contralateral homonymous inferior quadrantanopia ("pie on the floor"). A lesion in the occipital lobe would cause a contralateral homonymous hemianopia, often with macular sparing.

34. Which of the following are clinical features of migraine ?

I. It is associated with dilatation of extracranial vessels
II. Common migraine is seen without Aura
III. Aura is most often visual

Select the correct answer using the code given below:

(a) I, II and III
(b) I and II only
(c) II and III only
(d) I and III only

Ans :

(a) I, II and III

All three statements are correct descriptions of migraine features. Statement I is correct: The pulsating or throbbing quality of migraine headache is thought to be related to neurogenic inflammation and the dilatation of extracranial (and intracranial) blood vessels, which activates perivascular trigeminal sensory nerves. This is the basis for why vasoconstrictive drugs like triptans are effective. Statement II is correct: Migraines are broadly classified into two main types: migraine without aura and migraine with aura. Migraine without aura is the more prevalent form, historically and commonly referred to as "common migraine." Migraine with aura (classic migraine) is less common. Statement III is correct: An aura is a transient focal neurological symptom that precedes or accompanies the headache. The most common type of aura is visual, often described as flashing lights (photopsia), zigzag lines (scintillating scotoma), or areas of visual loss. Sensory (tingling, numbness) and language (aphasia) auras can also occur but are less frequent. Since all three statements are clinically accurate, option (a) is the correct answer.

35. A 50 year old man presents with brief episodes of lancinating unilateral facial pain, involving the buccal distribution. Pain is triggered by washing face with cold water. What is the most likely diagnosis ?

(a) Migraine
(b) Medication overuse headache
(c) Chronic paroxysmal hemicrania
(d) Trigeminal neuralgia

Ans :

(d) Trigeminal neuralgia

The clinical presentation is classic for Trigeminal neuralgia (also known as tic douloureux). This condition is characterized by brief, paroxysmal (sudden) episodes of severe, stabbing, or lancinating pain that is unilateral and confined to the distribution of one or more branches of the trigeminal nerve (CN V). The patient's pain in the "buccal distribution" corresponds to the maxillary (V2) or mandibular (V3) branches. A hallmark feature is the presence of "trigger zones" or specific actions that provoke an attack. The patient's pain being triggered by washing the face with cold water is a perfect example. Other common triggers include touching the face, chewing, talking, or a draft of wind. Migraine (a) is a longer-lasting, throbbing headache. Medication overuse headache (b) is a chronic, diffuse headache from analgesic overuse. Chronic paroxysmal hemicrania (c) is a trigeminal autonomic cephalalgia with shorter attacks (2-30 min) but with prominent autonomic features (tearing, nasal congestion) and is not typically triggered this way.

36. Which of the following are trigger factors for seizures?

I. Sleep deprivation
II. Missed doses of antiepileptic drugs
III. Recreational drug misuse
IV. Physical exhaustion

Select the correct answer using the code given below:

(a) II and III only
(b) I and IV only
(c) I, II and III only
(d) I, II, III and IV

Ans :

(d) I, II, III and IV

All four factors listed are well-recognized precipitants that can lower the seizure threshold and trigger a breakthrough seizure in a person with epilepsy, or even a first-time seizure in a susceptible individual. (I) Sleep deprivation is one of the most potent and common seizure triggers.

Downloaded from www.pdf.tube

(II) Missed doses of antiepileptic drugs (AEDs) is the most common cause of breakthrough seizures in patients with known epilepsy; maintaining stable AED levels is critical for seizure control. (III) Recreational drug misuse, particularly with stimulant drugs (like cocaine or amphetamines) or alcohol (especially during withdrawal), can significantly lower the seizure threshold. (IV) Physical exhaustion, along with other forms of physical or emotional stress, can also act as a trigger. Other common triggers include fever/ illness, flashing lights (photosensitivity), and hormonal changes (catamenial epilepsy). Since all four are established trigger factors, option (d) is the correct answer.

37. Which one of the following childhood epileptic disorders often needs long term treatment with anti epileptic drugs?
(a) Benign neonatal seizures
(b) Febrile seizures
(c) Benign rolandic epilepsy
(d) Juvenile myoclonic epilepsy

Ans :

(d) Juvenile myoclonic epilepsy
The prognosis and treatment duration for childhood epilepsy syndromes vary greatly. Juvenile Myoclonic Epilepsy (JME) is the correct answer. JME is a common generalized epilepsy syndrome with onset in adolescence, characterized by myoclonic jerks (often in the morning), generalized tonic-clonic seizures, and sometimes absence seizures. While the seizures are typically well-controlled with medication (like valproic acid), JME is considered a lifelong condition for most patients. Discontinuation of antiepileptic drugs (AEDs) is associated with a very high relapse rate (up to 90%), so long-term or lifelong treatment is the standard of care. In contrast, the other options are typically self-limiting. Benign neonatal seizures (a) ("fifth-day fits") resolve spontaneously. Febrile seizures (b) are age-dependent (6 months to 5 years) and usually do not require long-term AEDs. Benign rolandic epilepsy (c) (also called Benign Epilepsy with Centrotemporal Spikes) is the most common childhood epilepsy and has an excellent prognosis, with seizures and EEG abnormalities typically resolving by puberty.

38. Which of the following are clinical features of Parkinson's disease?
I. Reduced eye blinking
II. Drooling of saliva
III. Soft voice
IV. Macrographia
Select the correct answer using the code given below:
(a) I, II and III
(b) I, II and IV
(c) I, III and IV
(d) II, III and IV

NODIA

Ans :

(a) I, II and III
Parkinson's disease (PD) is a neurodegenerative disorder characterized by the cardinal motor features of bradykinesia, rigidity, resting tremor, and postural instability. It also has many non-motor and secondary motor features. (I) Reduced eye blinking (hypomimia or "masked facies") is a classic sign of the bradykinesia affecting facial muscles. (II) Drooling of saliva (sialorrhea) is common, not due to overproduction of saliva, but due to impaired and infrequent swallowing (a form of bradykinesia). (III) Soft voice (hypophonia) is also a characteristic feature, where the speech becomes quiet, rapid, and monotone (dysarthria). (IV) Macrographia means abnormally large handwriting. This is incorrect. A classic feature of PD is micrographia, where the handwriting becomes progressively smaller and more cramped as the person writes. This is another manifestation of bradykinesia. Therefore, the correct clinical features listed are I, II, and III.

39. A 35 year female presents with easy fatigability. Investigations show that Hb is 6 g%; Red cell morphology is normocytic normochromic; and reticulocyte production index is 5.5. Which one of the following conditions favours this abnormality?
(a) Iron deficiency anemia
(b) Sideroblastic anemia
(c) Folate deficiency
(d) Intravascular hemolysis

Ans :

(d) Intravascular hemolysis
The key to this question is interpreting the lab values. The patient has severe anemia (Hb 6 g%). The anemia is normocytic normochromic

, which rules out typical iron deficiency (a) and folate deficiency (c) (which are microcytic and macrocytic, respectively). Sideroblastic anemia (b) is often microcytic or dimorphic. The most important clue is the reticulocyte production index (RPI) of 5.5. A normal RPI is ~1. An RPI > 2-3 indicates a robust, hyperproliferative bone marrow response to the anemia. This means the bone marrow is healthy and is trying to compensate by producing many new red blood cells (reticulocytosis). This pattern is the hallmark of two conditions: acute blood loss or hemolysis (destruction of red blood cells). Given the options, intravascular hemolysis (d) is the only condition that fits. The rapid destruction of RBCs triggers a strong compensatory reticulocytosis, resulting in a normocytic anemia (as the new cells are normal-sized) and a very high RPI.

40. A 46 year old lady on vegan diet for a decade presents with chief complaints of tingling and numbness in lower limbs for two months and a history of swaying while walking through narrow corridors. Which one of the following blood tests is advisable for diagnosis in this patient?
(a) Serum protein electrophoresis
(b) Anti-gliadin antibodies
(c) Vitamin 25(OH) D level
(d) Vitamin B12 levels

Ans :

(d) Vitamin B12 levels
This patient's clinical presentation is highly suggestive of subacute combined degeneration of the spinal cord (SCD). The symptoms of tingling and numbness in the lower limbs indicate peripheral neuropathy (affecting sensory nerves), and swaying while walking through narrow corridors (a positive Romberg's sign) indicates a loss of proprioception, which is a posterior column sign. This specific combination of peripheral neuropathy and posterior column dysfunction is classic for Vitamin B12 deficiency. The patient's history provides the cause: she has been on a strict vegan diet for a decade. Vitamin B12 is found almost exclusively in animal products (meat, dairy, eggs). A long-term vegan diet without supplementation will inevitably lead to B12 deficiency. Therefore, measuring Vitamin B12 levels is the most appropriate blood test. While Vitamin D deficiency (c) can also occur in vegans, it does not cause SCD. Celiac disease (b) can cause malabsorption and neuropathy, but the dietary history points more directly to B12.

41. Which one of the following causes low-volume erythrocytosis?
(a) Polycythemia Rubra Vera
(b) Exogenous testosterone therapy
(c) Gaisbock's syndrome
(d) High altitude

Ans :

(c) Gaisbock's syndrome
Erythrocytosis (or polycythemia) is an increase in the red blood cell mass. It can be "absolute" (a true increase in red cell production) or "relative" (a decrease in plasma volume, making the blood seem more concentrated). "Low-volume erythrocytosis" is another term for relative or apparent erythrocytosis. Gaisbock's syndrome is the classic example of this. It is not a true polycythemia but a condition seen in (often obese, hypertensive, diuretic-using) middle-aged men where a chronically low plasma volume leads to a high hematocrit. The total red cell mass is normal. In contrast, Polycythemia Rubra Vera (a) is a myeloproliferative neoplasm causing a massive increase in red cell mass (absolute polycythemia). High altitude (d) and exogenous testosterone therapy (b) are both causes of secondary absolute polycythemia, where erythropoietin (EPO) production is stimulated (by hypoxia or androgens, respectively), leading to a true increase in red cell production.

42. First line therapy in chronic phase of chronic myeloid leukemia is
(a) Rituximab
(b) Thalidomide
(c) Imatinib
(d) Chlorambucil

Ans :

(c) Imatinib
The treatment of Chronic Myeloid Leukemia (CML) was revolutionized by the development of targeted therapies. CML is characterized by the presence of the Philadelphia chromosome, which results from a translocation (t(9;22)) creating the BCR-ABL fusion gene. This gene produces an abnormal, constitutively active tyrosine kinase that drives the excessive proliferation of myeloid

Click Here to Buy book on Amazon

cells. Imatinib (Gleevec) was the first and is the prototypical tyrosine kinase inhibitor (TKI). It specifically binds to and inhibits the BCR-ABL kinase, shutting down the malignant cell growth. Imatinib and other TKIs (like nilotinib, dasatinib) are the standard first-line therapy for chronic phase CML. Rituximab (a) is a monoclonal antibody targeting CD20, used for lymphomas and autoimmune diseases. Thalidomide (b) is an immunomodulatory drug used for multiple myeloma. Chlorambucil (d) is an alkylating agent (chemotherapy) used for chronic lymphocytic leukemia (CLL) and some lymphomas.

43. With regard to management of idiopathic thrombocytopenic purpura, consider the following statements:

I. All patients with ITP with platelet count less than 100×10^9/L should receive high dose of glucocorti- coids
II. For patient with spontaneous bleeding, 40 mg of dexametha- sone daily is indicated for 4 days
III. Intravenous immunoglobulin can raise the platelet count
IV. Life threatening bleeding should be treated with platelet transfusion

Which of the statements given above are correct?

(a) I, II and III
(b) II, III and IV
(c) I, III and IV
(d) I, II and IV

Ans :

(b) II, III and IV

Let's evaluate each statement regarding Idiopathic (Immune) Thrombocytopenic Purpura (ITP):

1. Statement I is incorrect. Treatment for ITP is generally not initiated based on a platelet count alone (unless < 20-30k/L). Treatment is reserved for patients who are actively bleeding or are at high risk of bleeding. Many asymptomatic patients with counts between 30-100k/L are managed with observation.
2. Statement II is correct. For adult ITP patients requiring first-line treatment, especially those with bleeding, a high-dose corticosteroid regimen is standard. One common and effective regimen is high-dose dexamethasone (e.g., 40 mg daily) for 4 days.
3. Statement III is correct. Intravenous immunoglobulin (IVIg) is a first-line therapy, along with steroids, especially when a rapid increase in platelet count is needed (e.g., severe bleeding). It works by overwhelming the reticuloendothelial system, preventing the clearance of antibody-coated platelets.
4. Statement IV is correct. In cases of life-threatening bleeding (e.g., intracranial hemorrhage), platelet transfusion is an essential emergency measure. Although the transfused platelets will also be destroyed by the autoantibodies, they provide temporary hemostasis and should be given along with IVIg and steroids.

Therefore, the correct statements are II, III, and IV.

44. Which of the following drugs can cause secondary weight gain?

I. Insulin
II. Propranolol
III. Orlistat
IV. Thyroxine

Select the correct answer using the code given below:

(a) I, II and IV
(b) I and III
(c) II, III and IV
(d) I and II only

Ans :

(d) I and II only

Several medications are known to have weight gain as a common side effect.

I. Insulin is a well-known cause of weight gain. It is an anabolic hormone that promotes glucose uptake and storage, inhibits fat breakdown (lipolysis), and promotes fat synthesis (lipogenesis).
II. Propranolol, a non-selective beta-blocker, is also associated with weight gain. The mechanisms are thought to include a reduction in metabolic rate and promotion of a switch to glucose metabolism over fat oxidation.
III. Orlistat is a weight loss medication. It works by inhibiting pancreatic and gastric lipases, thereby reducing the absorption of dietary fat from the intestine.
IV. Thyroxine (levothyroxine) is a thyroid hormone replacement. In a hypothyroid

NODIA

patient, initiating thyroxine typically leads to weight loss (or normalization) as it restores the basal metabolic rate. Weight gain is characteristic of hypothyroidism, not thyroxine therapy.

Therefore, the drugs listed that can cause secondary weight gain are Insulin (I) and Propranolol (II).

45. Under which one of the following conditions, the HPA axis suppression is likely to result in crisis due to adrenal insufficiency following withdrawal of glucocorticoids?

(a) If glucocorticoids have been given by intravenous route for five days
(b) If glucocorticoids have been administered orally for one week
(c) If glucocorticoids have been prescribed repeatedly within the previous year
(d) If the dose is less than equivalent of 5 mg prednisolone per day

Ans :

(c) If glucocorticoids have been prescribed repeatedly within the previous year

Suppression of the hypothalamic-pituitary-adrenal (HPA) axis is a major complication of exogenous glucocorticoid therapy. The risk depends on the dose, duration, and frequency of administration. A suppressed HPA axis can lead to an acute adrenal crisis if the steroids are withdrawn abruptly.

Statement (c) is correct because repeated courses of steroids, even if individually short, can have a cumulative suppressive effect on the HPA axis. The axis may not fully recover between courses, making the patient vulnerable to adrenal insufficiency.

Statements (a) and (b) are incorrect. Short courses of glucocorticoids, defined as less than 2-3 weeks (e.g., five days IV or one week orally), regardless of the dose, are generally considered safe to stop without tapering as they are unlikely to cause clinically significant HPA axis suppression.

Statement (d) is incorrect. A dose less than 5 mg of prednisolone (or equivalent) per day is generally considered a physiologic replacement dose and is unlikely to suppress the HPA axis, even when given long-term. HPA axis suppression is a concern with supra-physiologic doses (e.g., > 7.5 mg/day of prednisolone) given for more than 3 weeks.

46. Wilson's disease has which of the following inheritance?

(a) X-linked recessive
(b) Autosomal dominant
(c) Autosomal recessive
(d) It is an acquired disease

Ans :

(c) Autosomal recessive

Wilson's disease is a genetic disorder of copper metabolism, not an acquired disease. It follows an autosomal recessive pattern of inheritance. The disease is caused by mutations in the ATP7B gene, which is located on chromosome 13. This gene codes for a copper-transporting ATPase that is primarily expressed in the liver. A functioning ATP7B protein is necessary for two key processes: incorporating copper into ceruloplasmin (the main copper-carrying protein in blood) and excreting excess copper into the bile. In Wilson's disease, having two mutated copies of ATP7B renders this protein dysfunctional. As a result, copper cannot be excreted and accumulates to toxic levels, first in the liver and then in other organs, most notably the brain (especially the basal ganglia) and the cornea (causing Kayser-Fleischer rings). Options (a) and (b) are incorrect modes of inheritance for this condition.

47. Which of the following can be used for the management of severe hyper- kalaemia?

I. Intravenous calcitonin
II. Intravenous sodium bicarbonate
III. Oral sodium polystyrene sulphate
IV. Intravenous calcium gluconate

Select the correct answer using the code given below :

(a) I, II and IV
(b) II, III and IV
(c) I and II only
(d) I and IV only

Ans :

(b) II, III and IV]

The management of severe hyperkalemia involves three strategies: stabilizing the cardiac membrane, shifting potassium into cells, and removing potassium from the body.

IV. Intravenous calcium gluconate is the first-line emergent treatment. It does not lower

Downloaded from www.pdf.tube

serum potassium but provides immediate cardiac membrane stabilization to protect against fatal arrhythmias.

II. Intravenous sodium bicarbonate (often given with insulin and glucose) is a cell-shifting therapy. It creates a temporary metabolic alkalosis, which drives potassium from the extracellular fluid into the intracellular compartment.

III. Oral sodium polystyrene sulphate (e.g., Kayexalate) is a cation-exchange resin. It works in the gastrointestinal tract to bind potassium in exchange for sodium, thereby removing potassium from the body. It has a slower onset of action.

I. Intravenous calcitonin is used to treat hypercalcemia by inhibiting bone resorption; it has no role in the management of hyperkalemia.

Therefore, the correct therapies for severe hyperkalemia from the list are II, III, and IV.

48. Which one of the following conditions can cause euvolaemic hyponatraemia ?
(a) Adrenocortical failure
(b) Hypothyroidism
(c) Nephrotic syndrome
(d) Burns

Ans :

(b) Hypothyroidism
Hyponatremia is classified based on the patient's volume status: hypovolemic, euvolemic, or hypervolemic.
Euvolemic hyponatremia occurs when there is an increase in total body water but no significant change in total body sodium, leading to dilution. The classic causes are the Syndrome of Inappropriate Antidiuretic Hormone (SIADH), psychogenic polydipsia, and hypothyroidism. Severe hypothyroidism (myxedema) can reduce cardiac output and GFR, leading to a non-osmotic release of ADH and impaired free water excretion, resulting in euvolemic hyponatremia.
Adrenocortical failure (a) (e.g., Addison's disease) causes hypovolemic hyponatremia due to mineralocorticoid deficiency, which leads to renal salt (sodium) wasting.
Nephrotic syndrome (c) causes hypervolemic hyponatremia. The massive protein loss leads to low oncotic pressure and third-spacing, causing edema and ascites, which triggers ADH release.
Burns (d) cause massive fluid loss from the skin, leading to hypovolemic hyponatremia.

49. Which one among the following vectors transmits the filaria Loa Loa?
(a) Simulium
(b) Chrysops
(c) Cyclops
(d) Culicoides

NODIA

Ans :

(b) Chrysops
Loa loa, the "African eye worm," is a filarial nematode that causes the disease loiasis, characterized by transient subcutaneous "Calabar" swellings and, most dramatically, the visible migration of the adult worm across the conjunctiva of the eye. This parasite is transmitted from human to human through the bite of a specific vector. The correct vector is the Chrysops fly, also commonly known as the deer fly or mangrove fly. These are day-biting flies found in the rain forests of West and Central Africa. Option (a), Simulium (black fly), is the vector for Onchocerca volvulus, the cause of river blindness. Option (c), Cyclops, is a freshwater copepod (crustacean) that serves as the intermediate host for Dracunculus medinensis (guinea worm). Option (d), Culicoides (biting midges), are vectors for Mansonella species.

50. Which of the following is the most favourable prognostic parameter in Bell's palsy?
(a) Incomplete paralysis in the first week
(b) Mild CSF lymphocytosis
(c) Denervation in EMG after 10 days
(d) Pain behind the ear

Ans :

(a) Incomplete paralysis in the first week
Bell's palsy is an acute, idiopathic peripheral facial nerve (CN VII) paralysis. While most patients recover well, the most reliable factor for predicting an excellent outcome is the degree of paralysis at presentation. Incomplete paralysis (paresis) in the first week is the single most favorable prognostic sign. It implies that the nerve has only undergone neurapraxia (a temporary conduction block) without significant axonal damage (axonotmesis). Over 90-95% of patients with incomplete paralysis will have a

full and satisfactory recovery, often within a few weeks. In contrast, complete paralysis (plegia) has a more guarded prognosis. Option (c), evidence of denervation on electromyography (EMG) after 10 days, is actually a poor prognostic sign. It indicates that Wallerian degeneration of the axons has occurred, and recovery will be slower and may be incomplete. Option (d), pain behind the ear, is a common symptom but its prognostic value is debatable. Option (b), mild CSF lymphocytosis, is an inconsistent finding and not a strong clinical predictor of outcome.

51. Which one of the following groups of drugs is ineffective against gram positive bacteria?
(a) Monobactams
(b) Glycopeptides
(c) Fluoroquinolones
(d) First generation cephalosporins

Ans :

(a) Monobactams
The Monobactams (e.g., Aztreonam) are the correct answer. This class of be ta-lactam antibiotics has a unique spectrum of activity. Aztreonam is highly effective against most aerobic Gram-negative bacteria (including Pseudomonas aeruginosa) but is virtually ineffective against all Gram-positive bacteria (like Staphylococcus and Streptococcus) and anaerobic organisms. This specific spectrum makes it useful in patients with severe penicillin allergies who need Gram-negative coverage. In contrast, Glycopeptides (b) (e.g., Vancomycin) are a mainstay of treatment for severe Gram-positive infections, including MRSA. First-generation cephalosporins (d) (e.g., Cefazolin) are primarily used for their excellent coverage of Gram-positive cocci. Fluoroquinolones (c) (e.g., Ciprofloxacin, Levofloxacin) are broad-spectrum antibiotics, with later generations ("respiratory quinolones" like Levofloxacin) having enhanced activity against Gram-positive organisms, particularly Streptococcus pneumoniae. Therefore, monobactams are the only group listed that is inherently ineffective against Gram-positive bacteria.

52. Which one of the following statements is correct regarding leprosy ?
(a) Type 1 Leprosy Reaction is also called erythema nodosum lepro- sum
(b) Type 2 Leprosy Reaction is an immune complex mediated syn- drome called arthus phenomenon
(c) 'Lion face' appearance is seen in tuberculoid leprosy
(d) Nose is the last site of involve- ment in lepromatous leprosy

Ans :

(b) Type 2 Leprosy Reaction is an immune complex mediated syn- drome called arthus phenomenon
Type 2 Leprosy Reaction, also known as Erythema Nodosum Leprosum (ENL), is a systemic inflammatory complication that occurs in patients with lepromatous (LL) or borderline lepromatous (BL) leprosy. Statement (b) is correct in its immunological description. ENL is a systemic immune complex-mediated syndrome, specifically a Type III hypersensitivity reaction (similar to the Arthus phenomenon), where circulating immune complexes (formed from mycobacterial antigens and host antibodies) deposit in blood vessels and tissues, triggering widespread inflammation. Statement (a) is incorrect; it confuses the two reaction types. Type 1 Leprosy Reaction (reversal reaction) is a Type IV (delayed-type) hypersensitivity reaction. Statement (c) is incorrect; the classic "Lion face" or leonine facies, caused by diffuse infiltration and thickening of the facial skin, is a hallmark of advanced lepromatous leprosy, not tuberculoid leprosy. Statement (d) is incorrect; the nose (specifically the nasal mucosa and cartilage) is one of the earliest and most common sites of involvement in lepromatous leprosy, leading to chronic nasal stuffiness, crusting, and eventually septal perforation and the characteristic "saddle-nose" deformity.

53. A 56 year old gardener presents with an ulcerative nodule with purulent discharge on his right index finger. He had a prick with a thorn, at the same site around a month back. Which one of the following infections is most likely?
(a) Chromoblastomycosis
(b) Mycetoma
(c) Phaeohyphomycosis
(d) Sporotrichosis

Ans :

(d) Sporotrichosis

Click Here to Buy book on Amazon

The clinical scenario is classic for Sporotrichosis, a fungal infection caused by Sporothrix schenckii. This fungus is found in soil, moss, and decaying vegetation (like roses or hay). The patient's occupation as a gardener and the history of a prick with a thorn are the key risk factors, as this is the typical mode of inoculation. The infection classically begins as a small, painless papule at the inoculation site (the right index finger). Over weeks, this papule enlarges to form an ulcerative nodule, which may have a purulent discharge. In its lymphocutaneous form, new nodules would subsequently appear proximally along the lymphatic channels, but the initial lesion is exactly as described. Mycetoma (b) typically presents with a triad of tumefaction, draining sinuses, and "grains" (colonies of the organism). Chromoblastomycosis (a) usually presents as warty, cauliflower-like plaques. Phaeohyphomycosis (c) is a rarer infection caused by dematiaceous (pigmented) fungi. The specific history of a thorn prick points strongly to Sporotrichosis.

54. A 36 year old man presents with decreased apetite, mouth soreness, diarrhoea and irritability. On examina- tion he has a bright red tongue with a pigmented scaly rash around the neck. Which one of the following food items in his diet has a bearing on his disease?
(a) Rice
(b) Wheat
(c) Corn
(d) Fish

Ans :

(c) Corn
The patient's symptoms describe the classic "3 D's" of pellagra: Diarrhea (and other GI symptoms like mouth soreness), Dermatitis (the pigmented scaly rash), and Dementia (irritability, decreased appetite). The bright red tongue (glossitis) is also characteristic. The rash, when localized to the neck, is known as Casal's necklace. Pellagra is caused by a severe deficiency of Niacin (Vitamin B3). This deficiency can be caused by a diet heavily reliant on corn (maize). Corn contains niacin, but it is present in a bound form (niacytin) that is not biologically available unless it is first treated with an alkali (a process called nixtamalization, used in making tortillas). Furthermore, corn is also deficient in the amino acid tryptophan, which the body can use to synthesize niacin. Therefore, a diet based predominantly on untreated corn is a major risk factor for pellagra. Rice (a) can lead to thiamine deficiency (beriberi). Wheat (b) is a source of niacin. Fish (d) is a good source of both niacin and tryptophan.

55. Acrodermatitis enteropathica is an autosomal recessive metabolic disorder which affects the absorption of which one of the following micronutrients?
(a) Iodine
(b) Zinc
(c) Iron
(d) Selenium

Ans :

(b) Zinc
Acrodermatitis enteropathica is a rare autosomal recessive disorder caused by mutations in the SLC39A4 gene. This gene encodes a specific intestinal zinc transporter protein (Zip4) located on the apical membrane of enterocytes, which is crucial for absorbing dietary zinc from the small intestine. When this transporter is defective, the patient develops profound zinc deficiency, even with adequate dietary intake. The classic clinical triad, which typically appears in infants after they are weaned from breast milk, consists of:
1. Acrodermatitis: A characteristic pustular, eczematous, and erosive rash, symmetrically distributed around the body orifices (perioral, perianal) and on the distal extremities (acral).
2. Diarrhea: Chronic and severe.
3. Alopecia: Diffuse hair loss.

The condition is lifelong but highly treatable with high-dose oral zinc supplementation, which overcomes the defective absorption pathway. Iodine (a), Iron (c), and Selenium (d) are not related to this disorder.

56. Consider the following statements with regard to the treatment of vitamin A deficiency:
I. Repeated high doses of retinol can cause liver damage and terato- genicity
II. Acute overdose of vitamin A may lead to increased intracranial pressure and skin desquamation
III. Regular vitamin A supplementa- tion is also recommended for pregnant women even in countries where vitamin A deficiency is not

Downloaded from www.pdf.tube

endemic

IV. Excessive intake of carotene may cause harmless orange pigmenta- tion of the skin

Which of the statements given above are correct?

(a) I, II and III
(b) I, II and IV
(c) I, III and IV
(d) II, III and IV

Ans :

(b) I, II and IV

Let's evaluate each statement regarding Vitamin A (retinol) and its precursor, carotene.

1. Statement I is correct. Chronic hypervitaminosis A (toxicity from repeated high doses of preformed retinol) can lead to significant liver damage (hepatotoxicity, fibrosis, and cirrhosis). Vitamin A is also a potent teratogen, and high doses are contraindicated in pregnancy due to the risk of birth defects.
2. Statement II is correct. Acute hypervitaminosis A (a single massive overdose) classically presents with symptoms of increased intracranial pressure (pseudotumor cerebri), causing headache, nausea, and vomiting, followed by widespread skin desquamation (peeling).
3. Statement IV is correct. Excessive intake of carotene (provitamin A found in plants like carrots) does not cause Vitamin A toxicity because the body regulates its conversion to retinol. However, the excess carotene deposits in the skin, causing a harmless condition called carotenemia, which manifests as a yellow-orange pigmentation, especially on the palms and soles.
4. Statement III is incorrect. Because high-dose Vitamin A is teratogenic, regular supplementation is not recommended for pregnant women, especially in non-endemic countries where deficiency is rare and a balanced diet is sufficient.

Therefore, the correct statements are I, II, and IV.

57. Koebner phenomenon is seen in which one of the following conditions?

(a) Psoriasis
(b) Acne Vulgaris
(c) Bechet's disease
(d) Leprosy

Ans :

(a) Psoriasis

The Koebner phenomenon, also known as the isomorphic response, describes the development of new skin lesions (identical to the patient's underlying disease) at sites of cutaneous trauma or injury in otherwise unaffected skin. This phenomenon is a well-known feature of Psoriasis. For example, a psoriatic patient may develop a new, linear plaque of psoriasis along the line of a surgical incision or a scratch. While the Koebner phenomenon is not unique to psoriasis (it's also seen in lichen planus and vitiligo), it is a classic finding associated with it. Acne vulgaris (b) is a disorder of the pilosebaceous unit, not typically induced by trauma in this way. Behçet's disease (c) is associated with a "pathergy test," where a sterile needle prick induces a papule or pustule, which is a sign of non-specific hyperreactivity, distinct from the Koebner phenomenon's specific lesion formation. Leprosy (d) lesions are not characteristically induced by trauma.

58. Consider the following regarding the human hair growth cycle:

I. Anagen is a phase of active hair growth
II. Telogen is a transitional phase
III. Catagen is a resting phase

Which of the statements given above is/are correct?

(a) I only
(b) III only
(c) I and II only
(d) I, II and III

Ans :

(a) I only

The human hair growth cycle consists of three main phases. The statements in the question have confused the definitions of catagen and telogen.

1. Statement I is correct. Anagen is the active growth phase, during which the hair follicle is actively producing the hair fiber. This phase is long, lasting several years (2-7 years) for scalp hair, and determines the maximum length of the hair.
2. Statement II is incorrect. Telogen is the resting phase, not the transitional phase. During telogen, the hair follicle is dormant, and the hair fiber (a "club hair") is anchored in the follicle but no longer growing. This

NODIA

phase lasts for about 3-4 months before the hair is shed.

3. Statement III is incorrect. Catagen is the transitional phase (or involutional phase), not the resting phase. This is a short, 2-3 week phase where the hair follicle stops producing the hair fiber, detaches from its blood supply, and begins to shrink.

Therefore, only the first statement, "Anagen is a phase of active hair growth," is correct.

59. Consider the following statements regarding oculocutaneous albinism:

I. The disease results from genetic abnormalities leading to destruc- tion of melanocytes
II. Type 1 albinism is due to a defect in the tyrosinase gene
III. Patients may present with poor vision, rotator nystagmus and alternating strabismus
IV. Patients are at an increased risk of sunburn or developing skin cancer

Which of the statements given above are correct?

(a) I, II and III
(b) I, II and IV
(c) I, III and IV
(d) II, III and IV

Ans :

(d) II, III and IV

Oculocutaneous albinism (OCA) is a group of inherited disorders of melanin synthesis, not melanocyte destruction.

1. Statement I is incorrect. In OCA, melanocytes (the pigment-producing cells) are present in normal numbers, but their ability to produce melanin pigment is absent or reduced due to a genetic defect in the synthesis pathway. Destruction of melanocytes is the pathophysiology of vitiligo, not albinism.
2. Statement II is correct. Type 1 OCA is caused by mutations in the TYR gene, which codes for the enzyme tyrosinase. This enzyme is the rate-limiting step in the melanin synthesis pathway. A complete absence of tyrosinase activity (OCA1A) results in no melanin production.
3. Statement III is correct. Melanin is crucial for the normal development of the optic pathways. Its absence leads to foveal hypoplasia, misrouting of optic nerves at the chiasm, and reduced retinal pigment. This results in characteristic ocular findings, including poor vision, nystagmus (often rotatory), and strabismus.
4. Statement IV is correct. Melanin's primary function in the skin is to protect it from ultraviolet (UV) radiation. The absence of this protective pigment makes patients with albinism extremely susceptible to sunburn and markedly increases their lifetime risk of developing skin cancers, particularly squamous cell carcinoma.

Therefore, the correct statements are II, III, and IV.

60. A 42 year old man presented with recurrent oral ulcers since one year, episodes of redness of eye and genital ulcers. Which one of the following tests is of diagnostic value ?

(a) Mantoux test
(b) Drug-sensitivity test
(c) Pathergy test
(d) Patch test

Ans :

(c) Pathergy test

The clinical triad of recurrent oral ulcers, genital ulcers, and ocular inflammation (e.g., uveitis, conjunctivitis, causing "redness of eye") is highly characteristic of Behçet's disease. Behçet's is a systemic vasculitis of unknown etiology. While the diagnosis is primarily clinical, based on these recurrent symptoms, a specific test can support it. The Pathergy test is the correct answer. This test involves pricking the skin of the forearm with a sterile needle. In a patient with Behçet's disease, their non-specific hyperreactive inflammatory response will cause a sterile papule or pustule (a positive result) to form at the prick site within 24-48 hours. While not all patients with Behçet's are pathergy-positive (specificity varies by geography), it is a characteristic finding used in some diagnostic criteria. A Mantoux test (a) is for tuberculosis. A Patch test (d) is for diagnosing allergic contact dermatitis. A drug-sensitivity test (b) is too general and not specific to this syndrome.

61. Which of the following joints are commonly affected in osteoarthritis ?

I. First metatarsophalangeal joint
II. Proximal interphalangeal joint
III. Ankle joint

Click Here to Buy book on Amazon

IV. 5th and 6th cervical vertebrae joint

Select the correct answer using the code given below:

(a) I and II only
(b) III and IV only
(c) I, II and IV only
(d) I, II, III and IV

Ans :

(c) I, II and IV only

Osteoarthritis (OA) is a degenerative joint disease that preferentially affects certain "load-bearing" and "high-use" joints.

I. First metatarsophalangeal (MTP) joint: This joint (the base of the big toe) is a very common site for OA, leading to a condition known as hallux rigidus.
II. Proximal interphalangeal (PIP) joint: The PIP joints of the hand are a classic site for OA, along with the distal interphalangeal (DIP) joints. Involvement of these joints leads to the formation of characteristic bony nodules (Bouchard's nodes at the PIPs, Heberden's nodes at the DIPs).
IV. 5th and 6th cervical vertebrae joint: The cervical spine (and lumbar spine) are extremely common sites for OA, also known as spondylosis. The C5-C6 level is one of the most frequently affected areas due to its high mobility, leading to neck pain and radiculopathy.
III. Ankle joint: The ankle joint (tibiotalar joint) is classically spared in primary osteoarthritis. When OA does occur in the ankle, it is almost always secondary to a significant previous trauma, such as a fracture or severe sprain.

Therefore, the commonly affected joints listed are the first MTP, the PIPs, and the cervical spine (I, II, and IV).

62. Which of the following are causes of reversible dementia?

I. Hypothyroidism
II. Vitamin B12 deficiency
III. Dementia with lewy body
IV. Thiamine deficiency

Select the correct answer using the code given below:

(a) I, II and III
(b) I, II and IV
(c) I, III and IV
(d) II, III and IV

Ans :

(b) I, II and IV

The term "reversible dementia" refers to a dementia-like clinical syndrome (cognitive decline) that can be cured or significantly improved by treating the underlying cause.

I. Hypothyroidism : Severe, untreated hypothyroidism (myxedema) can cause significant cognitive slowing, apathy, and memory problems that mimic dementia, which is reversible with thyroid hormone replacement.
II. Vitamin B12 deficiency: As seen in pernicious anemia or long-term vegan diets, B12 deficiency can cause a range of neuropsychiatric symptoms, including memory loss, confusion, and cognitive decline, which can be reversed with B12 supplementation if caught early.
IV. Thiamine (B1) deficiency: This deficiency, most often seen in chronic alcoholism, causes Wernicke-Korsakoff syndrome. The Korsakoff syndrome component is a profound amnesia and confabulation that represents a form of dementia. The acute Wernicke's encephalopathy is reversible with high-dose thiamine, and early treatment may prevent or improve the chronic Korsakoff syndrome.
III. Dementia with Lewy bodies (DLB): This is a primary neurodegenerative disorder, similar to Alzheimer's and Parkinson's disease. It is characterized by the presence of Lewy bodies in the brain. DLB is a progressive and irreversible cause of dementia.

Therefore, the reversible causes listed are hypothyroidism, Vitamin B12 deficiency, and thiamine deficiency (I, II, and IV).

NODIA

63. Which of the following are clinical features of Fronto-Temporal dementia?

I. Personality change
II. Language disturbance
III. Memory may be preserved in early stages
IV. Anti-cholinesterases are the drug of choice for treatment

Select the correct answer using the code given below :

(a) I, II and III

(b) I, II and IV
(c) I, III and IV
(d) II, III and IV

Ans :

(a) I, II and III
Frontotemporal Dementia (FTD) is a group of neurodegenerative disorders that primarily affect the frontal and temporal lobes of the brain.

I. Personality change: This is a hallmark feature, especially of the behavioral variant (bvFTD). The frontal lobe involvement leads to profound changes in behavior, social conduct, and personality, such as disinhibition, apathy, loss of empathy, and compulsive behaviors.
II. Language disturbance: This is the primary feature of the language variants of FTD, known as Primary Progressive Aphasia (PPA). This can manifest as difficulty producing speech (non-fluent PPA) or difficulty understanding the meaning of words (semantic PPA).
III. Memory may be preserved in early stages: This is a key feature that distinguishes FTD from Alzheimer's disease. In early FTD, episodic memory (memory for recent events) is often relatively intact, while behavior and language are the first domains to be affected.
IV. Anti-cholinesterases are the drug of choice for treatment: This statement is incorrect. Anticholinesterase inhibitors (like donepezil), which are a standard treatment for Alzheimer's disease, are not effective in FTD and can sometimes even worsen behavioral symptoms. There are currently no disease-modifying drugs for FTD.

Therefore, the correct clinical features listed are I, II, and III.

64. Which one of the following is the myelinating cell of Central Nervous System ?
(a) Astrocyte
(b) Microglia
(c) Schwann cell
(d) Oligodendrocyte

Ans :

(d) Oligodendrocyte
Myelin is a lipid-rich sheath that insulates nerve axons, allowing for rapid and efficient conduction of electrical signals (saltatory conduction). The cells that produce this myelin sheath differ between the Central Nervous System (CNS) and the Peripheral Nervous System (PNS).
The Oligodendrocyte (d) is the myelinating glial cell of the Central Nervous System (which consists of the brain and spinal cord). A single oligodendrocyte can myelinate multiple (up to 50) different axons.
In contrast, the Schwann cell (c) is the myelinating cell of the Peripheral Nervous System (nerves outside the brain and spinal cord). A single Schwann cell myelinates only one segment of one axon.
Astrocytes (a) are glial cells in the CNS that provide metabolic support to neurons, maintain the blood-brain barrier, and regulate the ion balance.
Microglia (b) are the resident immune cells (macrophages) of the CNS, responsible for phagocytosis and immune surveillance.

65. Which one of the following is the correct description of Mee's lines, seen in chronic arsenic poisoning?
(a) Transverse white lines on nails of fingers and toes
(b) Transverse red lines on the skin of palms and soles
(c) Transverse white lines on the skin of palms and soles
(d) Transverse red lines on the nails of fingers and toes

Ans :

(a) Transverse white lines on nails of fingers and toes
Mee's lines are a specific finding seen on the nails (not the skin). They are correctly described as transverse white lines (leukonychia striata) on the nails of the fingers and toes. These lines are non-palpable and move distally as the nail grows. They are caused by a temporary disruption of the nail matrix (the tissue that produces the nail plate) during a period of systemic stress or poisoning. While classically associated with chronic arsenic poisoning, they are not specific and can also be seen after heavy metal poisoning (like thallium), severe systemic illness (like heart failure or chemotherapy), or significant infection. The lines form in the nail plate itself, indicating a poisoning event that occurred weeks to months

Downloaded from www.pdf.tube

prior, depending on their position on the nail. The other options describing lines on the skin or red lines on the nails are incorrect.

66. Fomepizole is an antidote used to treat poisoning from which of the following substances?

I. Methanol
II. Digoxin
III. Cocaine
IV. Ethylene glycol

Select the correct answer using the code given below :

(a) I and II
(b) II and III
(c) III and IV
(d) I and IV

Ans :

(d) I and IV

Fomepizole is a potent antidote specifically used for poisoning with toxic alcohols. It works as a competitive inhibitor of the enzyme alcohol dehydrogenase (ADH). This enzyme is responsible for the first, rate-limiting step in the metabolism of these alcohols. By blocking ADH, fomepizole prevents the conversion of the parent compounds into their highly toxic acidic metabolites.

I. Methanol is metabolized by ADH to formic acid, which causes severe metabolic acidosis and permanent blindness.
IV. Ethylene glycol (found in antifreeze) is metabolized by ADH to glycolic acid and oxalic acid, which cause severe metabolic acidosis and acute renal failure (due to oxalate crystal deposition).

Fomepizole is the standard antidote for both.

II. Digoxin toxicity is treated with Digoxin-specific antibody fragments (DigiFab).
III. Cocaine toxicity management is supportive, often using benzodiazepines for agitation and vasodilation for hypertension, but there is no specific antidote like fomepizole.

Therefore, fomepizole is used for methanol and ethylene glycol poisoning (I and IV).

67. The 4A Test is a screening tool for detection of delirium. Which of the following parameters are included in the 4AT tool?

I. Alertness
II. Apnoea
III. Abbreviated Mental Test (AMT4)
IV. Attention

Select the correct answer using the code given below:

(a) I, II and III
(b) I, II and IV
(c) I, III and IV
(d) II, III and IV

Ans :

(c) I, III and IV

The 4AT is a widely used, rapid screening tool for delirium and cognitive impairment. Its name ("4A Test") comes from its four main components. These components are:

1. Alertness (I): This assesses the patient's level of consciousness. An abnormal score is given if the patient is clearly drowsy (lethargic) or agitated/hyperactive.
2. AMT4 (Abbreviated Mental Test - 4) (III): This is a brief test of orientation, asking for the patient's age, date of birth, place (name of hospital/building), and the current year.
3. Attention (IV): This tests the ability to pay attention. The patient is asked to recite the months of the year in reverse order ("December, November...").
4. Acute change or fluctuating course: The assessor determines if there has been an acute change or fluctuation in the patient's mental status (Alertness, cognition, or other mental function) over the last 2 weeks and/or today. (This 4th component is not listed as an option, but the first three are).
5. Apnoea (II), which is the cessation of breathing, is not part of the 4AT. It is a sign of respiratory distress or sleep disorders.

Therefore, the parameters included in the 4AT from the list are Alertness (I), AMT4 (III), and Attention (IV).

68. Which of the following combina- tions of lab test results is indicative of heavy alcohol consumption, with more than 60% sensitivity and specificity?

(a) Gamma glutamyl transferase (GGT)>35 U/L and alkaline phosphatase >45 U/L
(b) Carbohydrate-deficient transferrin (CDT)>20 U/L and serum uric acid<7 mg/dL
(c) High normal MCV>91 fL and CDT<20 U/L
(d) GGT>35 U/L and CDT>20 U/L

NODIA

Ans :

(d) GGT>35 U/L and CDT>20 U/L

Biomarkers for heavy alcohol consumption are used to objectively screen for and monitor alcohol use disorders. No single marker is perfect, so combinations are often used.

Gamma-glutamyl transferase (GGT) is an enzyme that becomes elevated due to alcohol's inductive effect on the liver. It is sensitive but not very specific.

Carbohydrate-deficient transferrin (CDT) is a more specific marker. Chronic, heavy alcohol consumption (typically > 50-80 g/day for 2-3 weeks) interferes with the glycosylation of transferrin, leading to an increase in isoforms lacking carbohydrate side chains.

The combination of an elevated GGT (e.g., > 35 U/L) and an elevated CDT (e.g., > 20 U/L) (d) is a well-established strategy to improve both sensitivity and specificity for detecting recent, heavy alcohol use, often exceeding 60% for both metrics.

Option (a) is less specific, as alkaline phosphatase is not a primary alcohol marker. Option (b) is incorrect as a low uric acid is not typical. Option (c) is incorrect; while a high MCV (macrocytosis) is a marker of chronic alcoholism, combining it with a normal CDT would not be a strong indicator.

69. What is the antidote for belladonna poisoning?
(a) Physostigmine
(b) Amitriptyline
(c) Atropine
(d) Flumazenil

Ans :

(a) Physostigmine

Belladonna, also known as deadly nightshade, contains the toxic alkaloids atropine and scopolamine. These substances are potent anticholinergics (or muscarinic antagonists). They work by blocking acetylcholine receptors, leading to the classic anticholinergic toxidrome: "mad as a hatter" (delirium, hallucinations), "blind as a bat" (dilated pupils, blurred vision), "red as a beet" (flushed skin), "hot as a hare" (fever), and "dry as a bone" (dry mouth, urinary retention).

The specific antidote for this poisoning is Physostigmine (a). Physostigmine is a cholinesterase inhibitor that can cross the blood-brain barrier (it's a tertiary amine). It works by inhibiting the enzyme that breaks down acetylcholine, thereby increasing the amount of acetylcholine in the synapse to overcome the blockade caused by the belladonna alkaloids.

Atropine (c) is the cause of the poisoning, not the antidote. Amitriptyline (b) is a tricyclic antidepressant that also has strong anticholinergic properties and would worsen the toxicity. Flumazenil (d) is the antidote for benzodiazepine overdose.

70. Which one of the following prevents gastrointestinal absorption of thallium?
(a) Calcium carbonate
(b) Prussian blue
(c) Penicillamine
(d) Potassium permanganate

Ans :

(b) Prussian blue

Thallium is a highly toxic heavy metal. After ingestion, it is well-absorbed from the gastrointestinal (GI) tract and also undergoes significant enterohepatic and entero-enteric circulation (it is secreted back into the gut and then reabsorbed). The standard and most effective treatment to prevent this absorption and reabsorption is Prussian blue (ferric hexacyanoferrate). Prussian blue is administered orally (often via a nasogastric tube). It is not absorbed from the GI tract. Instead, it passes through the gut and acts as an ion-exchange resin, effectively binding thallium ions in exchange for potassium ions. This binding forms an insoluble complex that is then excreted in the feces, preventing both initial absorption and subsequent reabsorption. Penicillamine (c) is a chelating agent used to enhance systemic elimination (urinary excretion) of thallium after it has been absorbed, but it doesn't block GI absorption. Potassium permanganate (d) was historically used for gastric lavage in some poisonings but is not the antidote for thallium.

71. A 45 year old farmer came with accidental consumption of a pesticide. He complained of frequent urination and excessive salivation. Which one of the following toxidromes is most likely to be associated with this poisoning?
(a) Serotonergic

Click Here to Buy book on Amazon

(b) Cholinergic
(c) Adrenergic
(d) Hypnotic

Ans :

(b) Cholinergic
The patient's presentation as a farmer who consumed a pesticide, along with symptoms of frequent urination and excessive salivation, is classic for a cholinergic toxidrome. Many pesticides, particularly organophosphates and carbamates, are irreversible or reversible inhibitors of the enzyme acetylcholinesterase. This inhibition leads to a massive excess of acetylcholine in neuronal synapses and at neuromuscular junctions, causing overstimulation of both muscarinic and nicotinic receptors. The muscarinic effects are summarized by the mnemonic DUMBBELS:

1. Diarrhea
2. Urination (frequent urination)
3. Miosis (constricted pupils)
4. Bradycardia
5. Bronchospasm
6. Emesis (vomiting)
7. Lacrimation (tearing)
8. Salivation (excessive salivation)

The patient's symptoms are cornerstone features of this toxidrome. Adrenergic (sympathomimetic) (c) would cause dry mouth and urinary retention. Serotonergic (a) involves clonus and hyperreflexia. Hypnotic (d) involves sedation and respiratory depression.

72. Consider the following regarding salicylate poisoning:
I. Arterial pH of 7-25, anion gap of 18 mmol/L
II. Arterial pH of 7.25, anion gap of 10 mmol/L
III. pCO_2 of 20 mm Hg
IV. pCO_2 of 48 mm Hg
Which disturbance is likely to be encountered?
(a) I and III
(b) II and III
(c) I and IV
(d) II and IV

Ans :

(a) I and III
Salicylate (aspirin) poisoning classically causes a mixed acid-base disorder.

1. Respiratory Alkalosis: Salicylates directly stimulate the respiratory center in the brainstem, causing hyperventilation. This leads to a low pCO_2 (e.g., 20 mm Hg (III)).
2. Metabolic Acidosis: Salicylates uncouple oxidative phosphorylation and inhibit Krebs cycle enzymes, leading to the accumulation of organic acids (like lactate and ketoacids). This results in a high anion gap metabolic acidosis. A normal anion gap is ~10-12 mmol/L, so an anion gap of 18 mmol/L (I) is high and consistent with this.

In the early stages, the respiratory alkalosis may dominate (high pH). In the later, more severe stages (as seen in this question), the metabolic acidosis dominates, resulting in an acidemia (low pH). The classic finding in severe salicylate toxicity is therefore a combination of low pH (acidemia), a high anion gap, and a compensatory low pCO_2.

The combination of pH 7.25 (I), anion gap 18 (I), and pCO_2 20 (III) perfectly describes this mixed disorder. A pCO_2 of 48 (IV) would represent respiratory acidosis, which is the opposite of what occurs. An anion gap of 10 (II) is normal and inconsistent with salicylate poisoning.

73. Which of the following statements are typical for classic heat stroke?
I. Older patient
II. Normokalemia
III. Hyponatremia
IV. Marked lactic acidosis
Select the correct answer using the code given below:
(a) I and III
(b) I and II
(c) III and IV
(d) II and IV

Ans :

(b) I and II
Heat stroke is divided into two main types: classic (non-exertional) and exertional.

1. Classic heat stroke typically occurs in individuals who cannot escape or control their environment during a heat wave. This makes older patients (I), as well as the very young and those with chronic illnesses, the typical victims. Because the onset is passive (not due to exercise), rhabdomyolysis and lactic acidosis are uncommon. Electrolyte

NODIA

disturbances can be variable, but patients are often dehydrated (hypernatremic) or may have normokalemia (II) (or hypokalemia) due to respiratory alkalosis from hyperventilation (tachypnea).

2. Exertional heat stroke occurs in young, healthy individuals (like athletes or soldiers) undergoing strenuous physical activity. This form is characterized by marked lactic acidosis (IV) from muscle exertion and often rhabdomyolysis, which can lead to hyperkalemia.
3. Hyponatremia (III) is not typical of classic heat stroke; dehydration and hypernatremia are more common. If hyponatremia is present, it might suggest excessive water replacement without electrolytes (exertional hyponatremia).

Therefore, the features typical for classic heat stroke are older patient (I) and normokalemia (II).

74. Which of the following statements are correct regarding Weil's disease?

I. It is caused by a virus named leptospira
II. Acute kidney injury can lead to oliguria in this disease
III. Microscopic agglutination is the investigation of choice
IV. Ceftriaxone given parenterally is effective treatment

Select the correct answer using the code given below:

(a) I, II and III
(b) II, III and IV
(c) I, II and IV
(d) I, III and IV

Ans :

(b) II, III and IV

Weil's disease is the severe, icteric (ja1undice) form of leptospirosis.

1. Statement I is incorrect. Leptospirosis is caused by a spirochete bacterium of the genus Leptospira (e.g., L. interrogans), not a virus.
2. Statement II is correct. Weil's disease is a severe systemic infection classically defined by a triad of jaundice, bleeding, and acute kidney injury (AKI). This AKI is often severe and non-oliguric (high output), but it can lead to oliguria (low urine output) in the most severe cases.
3. Statement III is correct. The serological gold standard for diagnosis is the Microscopic Agglutination Test (MAT). This test detects antibodies in the patient's serum that react against a panel of live Leptospira serovars. A four-fold rise in titer between acute and convalescent samples is diagnostic.
4. Statement IV is correct. For severe leptospirosis (Weil's disease), parenteral (intravenous) antibiotics are required. Ceftriaxone is a first-line drug of choice, along with Penicillin G.

Therefore, the correct statements are II, III, and IV.

75. Which of the following are com- ponents of SOFA scoring system ?

I. PaO_2/FiO_2 ratio
II. Mean arterial pressure
III. Glasgow coma scale
IV. Prothrombin Time with INR

Select the correct answer using the code given below:

(a) I, II and III
(b) I, II and IV
(c) I, III and IV
(d) II, III and IV

Ans :

(a) I, II and III

The SOFA (Sequential Organ Failure Assessment) score is used in intensive care units to track a patient's organ function status and disease severity. It assesses six organ systems, grading each from 0 (normal) to 4 (most abnormal). The components are:

1. Respiration: Assessed by the PaO_2/FiO_2 ratio (I).
2. Cardiovascular: Assessed by mean arterial pressure (MAP) (II) and the need for vasopressor medications.
3. Neurologic: Assessed by the Glasgow Coma Scale (GCS) (III).
4. Coagulation: Assessed by the platelet count, not Prothrombin Time.
5. Liver: Assessed by the bilirubin level.
6. Renal: Assessed by the creatinine level or urine output.

Therefore, the components listed that are part

NODIA

of the SOFA score are the PaO_2/FiO_2 ratio (I), Mean arterial pressure (II), and Glasgow Coma Scale (III). Prothrombin Time with INR (IV) is used to assess the liver's synthetic function but is not the coagulation parameter used in the SOFA score; platelet count is.

76. What are the components to establish the diagnosis of Brain Death?

I. Absent brain stem reflexes
II. Apnoea in presence of elevated PCO_2
III. Hypothermia
IV. Irreversible and unresponsive coma

Select the correct answer using the code given below:

(a) I, II and III
(b) I, II and IV
(c) I, III and IV
(d) II and IV only

Ans :

(b) I, II and IV

The diagnosis of brain death (death by neurologic criteria) requires demonstrating the irreversible cessation of all function of the entire brain, including the brainstem. The three cardinal findings are:

1. Irreversible and unresponsive coma (IV): The patient must have a known, irreversible cause of coma and show no purposeful response to any stimuli.
2. Absent brainstem reflexes (I): This involves a battery of tests, including absent pupillary light reflex, absent corneal reflexes, absent oculocephalic (doll's eyes) and vestibulo-ocular (cold caloric) reflexes, and absent gag and cough reflexes.
3. Apnoea (II): This is confirmed with an apnoea test. The patient is disconnected from the ventilator (while being pre-oxygenated) to see if a rising PCO_2 (e.g., to > 60 mmHg or 20 mmHg above baseline) will stimulate the respiratory drive centers in the brainstem. If no respiratory effort is seen despite this potent stimulus, brainstem function is absent.

Hypothermia (III) (core temperature < 36°C) is a confounding factor that must be corrected before brain death testing can be performed. A hypothermic patient can appear to be brain dead, but the state may be reversible with rewarming. Thus, hypothermia invalidates, and is not a component of, the diagnosis.

Therefore, the correct components are I, II, and IV.

77. The most common cause for non- traumatic sub-arachnoid haemorrhage is

(a) A-V malformation
(b) Saccular aneurysm rupture
(c) Extension from primary intra- cerebral haemorrhage
(d) Idiopathic

Ans :

(b) Saccular aneurysm rupture

A subarachnoid hemorrhage (SAH) is bleeding into the subarachnoid space, the area between the arachnoid and pia mater. While the most common cause of SAH overall is head trauma, the question specifies non-traumatic SAH. The most common cause of spontaneous, non-traumatic SAH, accounting for approximately 80-85% of cases, is the rupture of a saccular (berry) aneurysm. These are small, berry-shaped outpouchings of blood vessels, typically located at bifurcations in the Circle of Willis at the base of the brain. The rupture leads to a sudden, high-pressure arterial bleed into the subarachnoid space, causing the classic "thunderclap headache." Arteriovenous malformations (AVMs) (a) are another cause of intracranial bleeding, but they are less common than aneurysms as a cause of SAH (they more often cause intracerebral hemorrhage). Extension from a primary intracerebral hemorrhage (c) can occur, but it is not the most common primary cause.

78. Peri-operative respiratory failure is an example of

(a) Type I respiratory failure
(b) Type II respiratory failure
(c) Type III respiratory failure
(d) Type IV respiratory failure

Ans :

(c) Type III respiratory failure

Respiratory failure is classified into four main types. Type III respiratory failure is defined as peri-operative respiratory failure. This type is specifically related to the effects of anesthesia, surgery, and the immediate post-operative period. It is primarily caused by atelectasis, the collapse of alveoli. Atelectasis occurs due to multiple factors in the peri-operative setting: general

Downloaded from www.pdf.tube

anesthesia suppresses breathing and cough reflexes, supine positioning reduces lung volumes (functional residual capacity), and abdominal or thoracic surgery causes pain that limits deep breathing (splinting). This widespread alveolar collapse leads to shunting (blood passing through unventilated lung) and profound hypoxemia. Type I (a) is hypoxemic respiratory failure (e.g., pneumonia, ARDS). Type II (b) is hypercapnic respiratory failure (e.g., COPD, neuromuscular disease). Type IV (d) is respiratory failure due to shock or hypoperfusion of respiratory muscles.

79. The murmur of mitral regurgitation is best heard at
(a) Tricuspid area
(b) Aortic area
(c) Cardiac apex
(d) Pulmonary area

Ans :

(c) Cardiac apex
The murmur of mitral regurgitation (MR) is caused by the backward (regurgitant) flow of blood from the left ventricle (LV) into the left atrium (LA) during systole, due to an incompetent mitral valve. This sound is generated at the mitral valve itself. The mitral valve's surface anatomy location, and the point where its sounds are best heard (the point of maximal impulse), is the cardiac apex. This is typically located in the 5th left intercostal space at the mid-clavicular line. The murmur of MR is classically a pansystolic (holosystolic), high-pitched, "blowing" murmur, heard best at the apex and often radiating to the axilla. The tricuspid area (a) (left lower sternal border) is where tricuspid regurgitation is heard. The aortic area (b) (right upper sternal border) is for aortic stenosis. The pulmonary area (d) (left upper sternal border) is for pulmonary valve sounds.

80. A 28 year female presented to emer- gency with fever, agitation and delirium. She was on regular medica- tion of Carbimazole 40 mg daily, but missed her doses for the last 2 days. Which of the following scoring systems would you like to do to assess severity of disease?
(a) DAS 28 score
(b) Burch-Wartofsky score
(c) Expanded Disability Status Scale
(d) Sequential Organ Failure Assess- ment Score

Ans :

(b) Burch-Wartofsky score
This patient's presentation—a known hyperthyroid patient on Carbimazole (an antithyroid drug) who acutely stops her medication and now has fever, agitation, and delirium (signs of severe CNS and thermoregulatory dysfunction)—is classic for thyroid storm (thyrotoxic crisis). Thyroid storm is a life-threatening exaggeration of thyrotoxicosis. The Burch-Wartofsky score is the specific clinical scoring system designed to diagnose and assess the severity of thyroid storm. It assigns points based on the severity of manifestations in multiple systems: thermoregulation (fever), central nervous system (agitation, delirium, coma), cardiovascular (tachycardia, atrial fibrillation, heart failure), and gastrointestinal-hepatic (nausea, vomiting, jaundice). A high score confirms the diagnosis and indicates high severity. The DAS 28 score (a) assesses disease activity in Rheumatoid Arthritis. The EDSS (c) tracks disability in Multiple Sclerosis. The SOFA score (d) assesses organ failure in sepsis and critical illness in general, but is not specific for thyroid storm.

81. Out of the following areas of brain, which area is most commonly affected on brain imaging in Wilson's disease?
(a) Cerebellum
(b) Sub-cortex
(c) Thalamus
(d) Basal ganglia

Ans :

(d) Basal ganglia
Wilson's disease is a genetic disorder of copper metabolism, leading to toxic copper accumulation in various organs, most notably the liver and brain. The neurologic manifestations (dystonia, tremor, parkinsonism, dysarthria) are a direct result of this copper deposition in the brain. The area of the brain with the strongest predilection for copper accumulation and subsequent damage is the basal ganglia, specifically the putamen and globus pallidus. On MRI, this can manifest as high signal intensity (hyperintensity) in these structures on T2-weighted images. A classic (though less common) finding is the "face of the giant panda" sign, which is seen in the midbrain

NODIA

due to signal changes in the tegmentum and red nucleus. While the thalamus (c) and cerebellum (a) can also be involved, the basal ganglia (especially the putamen) are the most characteristic and commonly affected sites on imaging.

82. Which of the following are secondary iron overload conditions?

I. Transfusion related iron load
II. Thalassemia
III. Hepatitis C associated liver disease

Select the correct answer using the code given below :

(a) I, II and III
(b) I and II only
(c) II and III only
(d) I and III only

Ans :

(a) I, II and III

Secondary iron overload (hemosiderosis) refers to iron accumulation that is not caused by the primary genetic defect of hemochromatosis (HFE gene mutation).

I. Transfusion-related iron load: This is a major cause. Each unit of packed red blood cells contains 200-250 mg of iron. Patients who require chronic blood transfusions (e.g., for sickle cell disease, MDS, or thalassemia) have no physiologic way to excrete this excess iron, leading to progressive overload.
II. Thalassemia: This condition contributes to iron overload in two ways. First, patients with severe thalassemia (like beta-thalassemia major) are transfusion-dependent, leading to the mechanism described in (I). Second, even without transfusions, the underlying ineffective erythropoiesis (abnormal RBC production in the marrow) leads to the release of signals (like hepcidin suppression) that increase dietary iron absorption, further worsening the iron load.
III. Hepatitis C associated liver disease: Chronic liver disease, particularly from Hepatitis C, can disrupt normal iron regulation. The liver is the central organ for iron metabolism (producing hepcidin), and chronic inflammation and cirrhosis can lead to increased iron uptake and deposition in the liver.

Therefore, all three conditions listed are recognized causes of secondary iron overload.

83. Which of the following are features of Alzheimer's disease?

I. It is a disorder of cerebral cortical function
II. Only short term memory is affected
III. Patients deny that there is any- thing wrong
IV. Depression is commonly present

Select the correct answer using the code given below:

(a) I, II and III
(b) I, II and IV
(c) I, III and IV
(d) II, III and IV

Ans :

(c) I, III and IV

Alzheimer's disease (AD) is the most common cause of dementia, characterized by progressive neurodegeneration.

I. It is a disorder of cerebral cortical function: This is correct. AD is a quintessential cortical dementia. The pathology (amyloid plaques and tau tangles) begins in the temporal lobes (affecting memory) and spreads throughout the cerebral cortex, leading to global cognitive decline, aphasia, apraxia, and agnosia.
III. Patients deny that there is anything wrong: This is a common and characteristic feature known as anosognosia, or lack of insight. As the disease progresses (particularly with frontal lobe involvement), patients often become unaware of their deficits and may deny any memory or functional problems.
IV. Depression is commonly present: This is correct. Depression and apathy are very common neuropsychiatric symptoms in AD. Depression can be a comorbid condition or an early symptom of the disease itself.
II. Only short term memory is affected: This is incorrect. While impairment of short-term memory (episodic memory) is the earliest and most prominent cognitive symptom, AD is a progressive disease. As it advances, it also affects long-term memory, language, visuospatial skills, and executive function, leading to a global dementia.

Therefore, the correct features listed are I, III, and IV.

Click Here to Buy book on Amazon

84. Glymphatics is the lymphatic like structure of which system?
(a) Central Nervous System
(b) Respiratory
(c) Renal
(d) Gastro-intestinal

Ans :

(a) Central Nervous System
The glymphatic system is the correct answer. It is a recently discovered macroscopic waste clearance system for the Central Nervous System (CNS). The CNS (brain and spinal cord) was long thought to lack a conventional lymphatic system. The glymphatic system describes a unique mechanism: cerebrospinal fluid (CSF) from the subarachnoid space flows into the brain parenchyma along the outside of penetrating arteries (in para-arterial spaces). This CSF then moves through the brain's interstitial space (the "interstitium"), mixing with interstitial fluid (ISF) and collecting metabolic waste products (like amyloid-beta). This fluid mixture is then cleared from the brain, flowing out along para-venous spaces. This entire process is facilitated by astrocytes (a type of glial cell), which is why it is named the "glial-lymphatic" or "glymphatic" system. It is most active during sleep and is crucial for brain homeostasis.

85. Which one of the following state- ments is correct in the diagnosis of Giardiasis?
(a) Stool sample at 2-3 days interval should be examined for cysts
(b) String test is done to find out cysts of Giardia lamblia
(c) Jejunal biopsy samples can show presence of larvae of Giardia lamblia
(d) Cystic form of Giardia lamblia remains viable in water upto 1 week only

Ans :

(a) Stool sample at 2-3 days interval should be examined for cysts
The diagnosis of giardiasis, caused by the protozoan Giardia lamblia, is typically made by identifying the organism in stool. Statement (a) is correct because Giardia excretion in feces is intermittent. A single stool sample may be negative even in an infected person. Therefore, the standard recommendation is to collect and examine multiple stool samples (usually three) at 2-3 day intervals to maximize the diagnostic yield of finding either the cysts (the infective form) or the trophozoites. Statement (b) is incorrect; the string test (entero-test), where a gelatin capsule on a string is swallowed, is used to sample duodenal fluid to look for trophozoites (the motile, feeding stage), not cysts. Statement (c) is incorrect; Giardia is a protozoan and does not have a larval stage. A jejunal biopsy would show trophozoites adhering to the mucosa. Statement (d) is incorrect; the cyst form is the environmentally resistant stage. It is very hardy and can remain viable in cold, fresh water for several months (not just one week), which is why it is a common cause of waterborne outbreaks.

86. In clinical assessment of an elderly patient, 'the get up and go test' is used to evaluate which of the following?
(a) Gait and balance
(b) Cognition
(c) Driving ability
(d) Urinary incontinence

Ans :

(a) Gait and balance
The 'Timed Up and Go' (TUG) test, often shortened to 'get up and go test', is a standard component of a geriatric assessment. It is a simple and quick test used to evaluate a person's gait, balance, and mobility, and to assess their risk of falls. The test involves observing and timing the patient as they perform a sequence of movements:
1. Stand up from a standard armchair.
2. Walk a short distance (usually 3 meters or 10 feet).
3. Turn around.
4. Walk back to the chair.
5. Sit back down.

An older adult who takes more than 12-14 seconds to complete this task is considered to have impaired mobility and is at an increased risk for falls. Cognition (b) is assessed with tests like the MMSE or MoCA. Urinary incontinence (d) is assessed by history and specific questionnaires. Driving ability (c) involves a more complex assessment, though the TUG test results may be one small part of that decision.

87. Treatment of first choice in acute Gout is
(a) Oral Methotrexate
(b) Oral Colchicine

NODIA

(c) Allopurinol
(d) Sulfasalazine

Ans :

(b) Oral Colchicine
The primary goal in treating an acute gout attack is to rapidly relieve the intense pain and inflammation caused by urate crystals in the joint. The first-line options for this are:
1. Non-steroidal anti-inflammatory drugs (NSAIDs) (e.g., indomethacin, naproxen)
2. Oral Colchicine
3. Corticosteroids (oral or intra-articular injection)

Oral colchicine (b) is a classic and effective first-line therapy, especially when given within the first 12-24 hours of an attack. It works by inhibiting neutrophil migration and phagocytosis, thereby reducing the inflammatory response. Allopurinol (c) is a urate-lowering therapy (a xanthine oxidase inhibitor) used for the chronic, long-term management of gout to prevent future attacks. It is contraindicated to start allopurinol during an acute attack, as it can mobilize urate stores and worsen or prolong the flare. Methotrexate (a) and Sulfasalazine (d) are DMARDs (disease-modifying antirheumatic drugs) used for conditions like rheumatoid arthritis, not for acute gout.

88. A 56 year male came with acute onset breathlessness and found to have pneumothorax. The resident doctor decided to insert intercostals drain. Which one of the following sites is suitable for such a procedure ?
(a) Hesselbach's triangle
(b) Petilis triangle
(c) Triangle of safety
(d) Triangle of auscultation

Ans :

(c) Triangle of safety
The insertion of an intercostal chest drain (tube thoracostomy) is a common procedure for treating a pneumothorax. To minimize the risk of injuring underlying structures (like the lung, diaphragm, liver, or internal mammary artery), a specific anatomical landmark is used. This is the "Triangle of Safety". This triangle is considered the safest and most appropriate site for chest drain insertion. Its borders are:
1. Anterior border: The lateral edge of the pectoralis major muscle.
2. Posterior border: The lateral edge of the latissimus dorsi muscle.
3. Apex: The axilla (armpit).
4. Base: A horizontal line at the level of the 4th or 5th intercostal space (often at the level of the nipple in males).

Hesselbach's triangle (a) is in the inguinal region, related to inguinal hernias. The Triangle of Petit (b) (petilis triangle) is in the lumbar region. The Triangle of Auscultation (d) is on the back, where breath sounds are heard more clearly.

89. Which one of the following is an antidote for Rivaroxaban and Apixaban, when reversal of anticoagulation is needed due to uncontrolled bleeding?
(a) Idarucizumab
(b) Andexanet Alfa
(c) Hydroxocobalamin
(d) Glucarpidase

Ans :

(b) Andexanet Alfa
Rivaroxaban and Apixaban are Direct Oral Anticoagulants (DOACs) that work by directly inhibiting Factor Xa. In cases of life-threatening or uncontrolled bleeding, a specific reversal agent is needed. Andexanet Alfa is the correct antidote. It is a recombinant, modified version of human Factor Xa that acts as a "decoy." It binds to Rivaroxaban and Apixaban with high affinity, sequestering them away from the body's natural Factor Xa, thereby restoring normal hemostasis. Idarucizumab (a) is also a specific antidote, but it is for Dabigatran (a direct thrombin inhibitor), not the Factor Xa inhibitors. Hydroxocobalamin (c) is an antidote for cyanide poisoning. Glucarpidase (d) is an antidote used to rapidly lower toxic levels of methotrexate.

90. Which of the following are included in common causes of mediastinal masses in superior and anterior mediastinum?
I. Goitre
II. Thymic tumour
III. Neurogenic tumour

Select the correct answer using the code given below:
(a) I and II only
(b) II and III only
(c) I and III only

Downloaded from www.pdf.tube

(d) I, II and III

Ans :

(a) I and II only

The mediastinum is divided into anterior (or anterosuperior), middle, and posterior compartments. Different types of masses have a predilection for specific compartments.

I. Goitre: A retrosternal or substernal goitre (an enlarged thyroid gland) often descends from the neck into the superior and anterior mediastinum.
II. Thymic tumour: The thymus gland is located in the anterior mediastinum. Therefore, thymic tumours (like thymoma) are a classic cause of anterior mediastinal masses. The "4 T's" mnemonic for anterior mediastinal masses is: Thymoma, Teratoma (germ cell tumors), Thyroid (goitre), and Terrible Lymphoma.
III. Neurogenic tumour: These tumours (e.g., schwannoma, neurofibroma) arise from nerve-related structures. The vast majority (>90%) of neurogenic tumours are located in the posterior mediastinum, arising from the sympathetic ganglia or intercostal nerves.

Therefore, the common causes of superior and anterior mediastinal masses from the list are Goitre (I) and Thymic tumour (II).

91. Which one of the following is used to reverse the anticoagulant effects of Dabigatran ?
(a) Glucarpidase
(b) Desferrioxamine
(c) Idarucizumab
(d) Protamine

Ans :

(c) Idarucizumab

Dabigatran (Pradaxa) is a Direct Oral Anticoagulant (DOAC) that works by directly inhibiting thrombin (Factor IIa). In the event of life-threatening bleeding or the need for emergency surgery, a specific reversal agent is required. Idarucizumab (Praxbind) is the correct antidote. It is a humanized monoclonal antibody fragment (Fab) that binds to dabigatran and its metabolites with extremely high affinity, rapidly and completely neutralizing their anticoagulant effect. Protamine (d) is the antidote for heparin. Desferrioxamine (b) is a chelating agent used to treat iron overload. Glucarpidase (a) is an enzyme used to clear toxic levels of methotrexate.

92. Which one of the following is contra- indication of doing a wireless capsule endoscopy?
(a) Coeliac disease
(b) Small bowel stricture
(c) Obscure gastrointestinal bleeding
(d) Small bowel Crohn's disease

Ans :

(b) Small bowel stricture

Wireless capsule endoscopy involves swallowing a "pill-cam" that takes thousands of pictures as it passes through the gastrointestinal tract, primarily to visualize the small intestine. The absolute contraindication for this procedure is a known or suspected small bowel stricture (b). A stricture is a narrowing of the intestinal lumen. If the capsule is swallowed, it can become lodged or impacted at the site of the stricture, causing a complete bowel obstruction, which is a medical emergency often requiring surgical removal. Obscure gastrointestinal bleeding (c) (where upper endoscopy and colonoscopy are negative) is the most common indication for capsule endoscopy. Coeliac disease (a) and small bowel Crohn's disease (d) are also indications for the procedure, as it can be used to assess the extent of mucosal damage or inflammation in these conditions. However, in these cases (especially Crohn's), a patency capsule is often given first to rule out an unknown stricture before the more expensive diagnostic capsule is used.

93. Which one of the following is the causative organism of Erythrasma, a mild, localized and superficial skin infection?
(a) Corynebacterium pseudo tuber- culosis
(b) Corynebacterium minutissimum
(c) Corynebacterium diphthariae
(d) Corynebacterium matruchotii

Ans :

(b) Corynebacterium minutissimum

Erythrasma is a common, superficial bacterial skin infection that typically affects the intertriginous areas (skin folds), such as the axillae, groin, and toe webs. It presents as well-defined, reddish-brown patches with fine scale. The causative organism is Corynebacterium minutissimum. This bacterium is part of the normal skin flora but can overgrow in conditions of heat and humidity.

NODIA

A characteristic diagnostic feature is that the rash fluoresces a coral-red color when examined under a Wood's lamp. This fluorescence is due to porphyrins (specifically coproporphyrin III) produced by the bacteria. Corynebacterium diphtheriae (c) causes diphtheria. The other two species are less common human pathogens; C. pseudotuberculosis (a) causes lymphadenitis, and C. matruchotii (d) is found in dental plaque.

94. Which one of the following is correctly matched regarding classification of portal hypertension according to site of vascular obstruction?
(a) Sinusoidal - Veno-occlusive disease
(b) Pre-hepatic presinusoidal - Portal vein thrombosis
(c) Intraheptic presinusoidal - Cirrhosis
(d) Post-hepatic post sinusoidal - Schistosomiasis

Ans :

(b) Pre-hepatic presinusoidal - Portal vein thrombosi
Portal hypertension is classified based on the anatomical location of the obstruction to blood flow.
1. Pre-hepatic: Obstruction before the liver.
2. Intra-hepatic: Obstruction within the liver.
3. Post-hepatic: Obstruction after the liver.
4. The intra-hepatic category is further divided into pre-sinusoidal, sinusoidal, and post-sinusoidal.

Let's analyze the options:
(a) Veno-occlusive disease (now Sinusoidal Obstruction Syndrome) causes obstruction of the terminal hepatic venules and sinusoids. This is an intra-hepatic post-sinusoidal (or sinusoidal) cause, not just sinusoidal.
(b) Portal vein thrombosis is a blockage of the main portal vein before it enters the liver. This is the classic example of a pre-hepatic presinusoidal cause of portal hypertension. This statement is correctly matched.
(c) Cirrhosis is the most common cause of portal hypertension. The fibrosis and regenerative nodules distort the liver architecture, causing obstruction primarily at the sinusoidal level. This is an intra-hepatic sinusoidal cause, not pre-sinusoidal.
(d) Schistosomiasis (hepatic form) causes "pipe-stem" fibrosis around the portal tracts due to egg deposition. This obstructs the small portal vein branches within the liver but before the sinusoids. This is a classic intra-hepatic pre-sinusoidal cause, not post-hepatic.

95. Which one of the following is a secondary cause of headache ?
(a) Migraine
(b) Tension-type headache
(c) Trigeminal autonomic cephalalgia
(d) Medication overuse headache

Ans :

(d) Medication overuse headache
Headaches are broadly classified into primary and secondary types.
1. Primary headaches are idiopathic disorders where the headache itself is the disease. This category includes Migraine (a), Tension-type headache (b), and the Trigeminal autonomic cephalalgias (c) (which includes cluster headache and paroxysmal hemicrania).
2. Secondary headaches are those that are a symptom of an underlying structural, metabolic, or systemic problem. Examples include headache due to brain tumors, subarachnoid hemorrhage, meningitis, or substance use/withdrawal. Medication overuse headache (d) (MOH), also known as rebound headache, is a classic example of a secondary headache. It is caused by the chronic, excessive use of acute headache medications (like analgesics or triptans), which paradoxically leads to the development of a chronic daily headache. It is classified as a headache attributed to a substance or its withdrawal.

96. A 32 year old man presents with history of recurrent jaundice over the previous decade. Family gives history of the patient having episodes of facial grimacing. Which one of the following is a clinical clue to the diagnosis?
(a) Adenoma sebaceum in the mid face
(b) Erythema nodosum on the skin
(c) Kayser-Fleisher rings in the cornea
(d) Olser's nodes at the finger tips

Ans :

(c) Kayser-Fleisher rings in the cornea
This clinical picture points strongly to Wilson's disease. This is an autosomal recessive disorder of copper metabolism, leading to

Click Here to Buy book on Amazon

copper accumulation in the liver and brain. The recurrent jaundice suggests chronic liver disease (cirrhosis) starting from a young age. The "facial grimacing" is a key symptom of the neuropsychiatric involvement; copper deposition in the basal ganglia causes movement disorders like dystonia (which includes grimacing), tremor, and parkinsonism. A pathognomonic clinical clue for Wilson's disease is the Kayser-Fleisher (K-F) ring. This is a golden-brown ring of copper deposits in Descemet's membrane at the limbus (the periphery) of the cornea. It is best seen on a slit-lamp examination. Adenoma sebaceum (a) (facial angiofibromas) are seen in Tuberous Sclerosis. Erythema nodosum (b) is a skin inflammation seen in many conditions (e.g., sarcoidosis, IBD). Osler's nodes (d) are painful nodules seen in infective endocarditis.

97. Which of the following are causes of secondary immunodeficiency in children?

I. Diphenylhydantoin
II. Severe malnutrition
III. Post-varicella state
IV. Nephrotic syndrome

Select the correct answer using the code given below:

(a) I, II and III
(b) I, II and IV
(c) I, III and IV
(d) II, III and IV

Ans :

(d) II, III and IV

Secondary (or acquired) immunodeficiency is the loss of immune function as a result of an external factor, disease, or condition, as opposed to a primary (congenital) genetic defect.

1. Diphenylhydantoin (Phenytoin): This anti-seizure medication is a known cause of secondary immunodeficiency, but it typically causes a very specific defect: selective IgA deficiency. While a valid cause, it's a more specific iatrogenic (drug-induced) cause.
2. Severe malnutrition: This is the most common cause of secondary immunodeficiency worldwide. Protein-energy malnutrition severely impairs the immune system, especially cell-mediated immunity (T-cells), complement function, and antibody production.
3. Post-varicella state: Many viral infections, including varicella (chickenpox) and measles, are well-known to cause a transient but significant period of immunosuppression (anergy), particularly by affecting T-cell function. This leaves the child vulnerable to secondary bacterial infections.
4. Nephrotic syndrome: This kidney disorder is a classic cause of secondary immunodeficiency. The massive loss of protein in the urine (proteinuria) includes the loss of immunoglobulins (antibodies) and complement factors, leading to a state of acquired hypogammaglobulinemia and a high risk of severe bacterial infections.

The question groups three causes. The most significant and broad categories of causes listed are severe malnutrition (nutritional), post-varicella state (infectious), and nephrotic syndrome (systemic disease with protein loss). The drug-induced cause (I), while valid, is more specific and iatrogenic, making (II, III, and IV) the best grouping of major, non-iatrogenic causes.

98. Which of the following statements are correct regarding vaccination routes for children?

I. Hepatitis B vaccine given in del- toid region has reduced efficacy
II. Two vaccines may be given in the same thigh, but separated by 1 inch
III. Separate sites are used when administering a vaccine and an immunoglobulin
IV. Two intramuscular vaccines may be given on the same day but in separate limbs

Select the answer using the code given below:

(a) III only
(b) I and III
(c) II and III
(d) I and IV

Ans :

(c) II and III

Let's analyze the statements on vaccine administration.

1. Statement I is incorrect. In older children and adults, the deltoid muscle is the preferred site for IM injections like Hepatitis B, as it provides a good immunogenic response. In infants and young toddlers, the anterolateral thigh (vastus lateralis) is preferred due to its larger muscle mass. Giving it in the gluteal

Downloaded from www.pdf.tube

region is what's associated with reduced efficacy due to injection into fat.

2. Statement II is correct. If multiple vaccines must be given in the same limb (e.g., in an infant), they should be administered into the same muscle (e.g., vastus lateralis) but must be separated by at least 1 inch (2.5 cm). This prevents the vaccine components from mixing and allows for monitoring of local reactions.
3. Statement III is correct. When a vaccine (active immunization) and an immunoglobulin (passive immunization, e.g., Hepatitis B vaccine and HBIG) are given simultaneously, they must be administered at separate anatomical sites (e.g., different limbs). Giving them at the same site could lead to the immunoglobulin neutralizing the vaccine antigen, thus preventing an active immune response.
4. Statement IV is incorrect. While giving two IM vaccines in separate limbs is an option, it is not a requirement. As per statement II, they can be given in the same limb (same thigh) as long as they are separated by 1 inch.

Therefore, the correct statements are II and III.

99. A radiopaque density may be noticed in poisoning by which of the following agents ?
(a) Phenazopyridine
(b) Ethylene glycol
(c) Chloroquine
(d) Chloral hydrate

Ans :

(d) Chloral hydrate

A plain abdominal X-ray is sometimes useful in toxicology to identify an ingested substance. Most pills and liquids are radiolucent (they don't show up), but substances that are radiopaque (white on X-ray) typically contain elements with a high atomic number that absorb X-rays.

1. (d) Chloral hydrate: This is the classic example of a non-metallic organic compound that is radiopaque. It is a halogenated hydrocarbon ($C_2H_3Cl_3O_2$), and the three chlorine atoms give it a high density, causing it to be visible on an X-ray.
2. (a), (b), (c): Phenazopyridine, ethylene glycol, and chloroquine are organic molecules composed primarily of carbon, hydrogen, oxygen, and nitrogen. These elements have low atomic numbers similar to soft tissue and are therefore radiolucent.

A common mnemonic for radiopaque ingestions is CHIPES:

i. C = Chloral hydrate, Calcium, Cocaine (body packs)
ii. H = Heavy metals (Lead, Mercury, Arsenic, Bismuth)
iii. I = Iron, Iodide
iv. P = Phenothiazines (a class of antipsychotics)
v. E = Enteric-coated tablets
vi. S = Salicylates (only in massive concretion/bezoar formation)

NODIA

100. Which of the following syndromes are caused due to genomic imprinting?
I. Rubinstein Taybi syndrome
II. Prader-Willi syndrome
III. Angelman syndrome
IV. Edward syndrome
Select the correct answer using the code given below:
(a) I and III
(b) II and III
(c) II and IV
(d) I and IV

Ans :

(b) II and III

Genomic imprinting is an epigenetic phenomenon where a gene is expressed in a parent-of-origin-specific manner. This means that for a small subset of genes, only one copy (either the one from the mother or the one from the father) is active, while the other copy is silenced (imprinted).

Prader-Willi syndrome (II) and Angelman syndrome (III) are the classic textbook examples of disorders caused by imprinting. Both are caused by a deletion or defect in the same specific region of chromosome 15 (15q11-q13).

In Prader-Willi syndrome, the defective or deleted chromosome 15 is inherited from the father. The maternal copy of this region is normally imprinted (silenced), so the individual is left with no active copies of the critical PWS genes.

In Angelman syndrome, the defective or deleted chromosome 15 is inherited from the mother. The paternal copy of the UBE3A gene (in this

region) is normally imprinted, so the individual is left with no active copy.
Rubinstein-Taybi syndrome (I) is an autosomal dominant condition caused by mutations in the CREBBP or EP300 genes. Edward syndrome (IV) is a chromosomal aneuploidy (Trisomy 18). Neither is a disorder of imprinting.

101. As per POCSO (Protection of Children from Sexual Offences) Act 2012, sexual assault is considered aggravated when
I. the abuse involves use of physical violence
II. the abused child is disabled
III. the abuse is committed by staff of an educational institution
IV. the abuse is committed by an immediate family member/first degree relative
Which of the above are correct?
(a) I and IV
(b) I and III
(c) II and III
(d) II and IV

Ans :

(d) II and IV
The POCSO Act, 2012, in Sections 5 and 9, defines specific circumstances that make sexual offenses "aggravated." These factors are primarily based on the extreme vulnerability of the child or a severe breach of trust by the perpetrator. Statement (II) is correct; Section 9(b) explicitly lists the child being "mentally or physically disabled" as an aggravating circumstance. Statement (IV) is also correct; Section 9(d) identifies an offense committed by "a member of the family of the child" as aggravated, representing a profound breach of trust. This combination highlights both victim vulnerability and a severe breach of trust. Statement (III) (staff of an educational institution) is also a valid aggravating factor listed in Section 9(f), representing a breach of trust. Statement (I) is less precise; the Act specifies "grievous bodily harm" (Section 5(b)) or "endangering the life" of the child, which is a higher threshold than just "physical violence," as assault is inherently violent. Given the paired options, (II) and (IV) are two of the most clear-cut and commonly cited aggravating factors.

102. The mother of a 14-month-old normally developing baby comes to you for feeding advice. Which of the following would be appropriate for her as per the IMNCI (Integrated Management of Neonatal and Childhood Illness) Program?
I. Breastfeed as often as the child wants
II. Keep the child in your lap and feed with your own hands
III. Offer food from the family pot
IV. Give 3 to 4 meals each day
Select the correct answer using the code given below:
(a) II, III and IV
(b) I, III and IV
(c) I, II and III
(d) I, II and IV

Ans :

(b) I, III and IV
The IMNCI guidelines provide specific feeding recommendations for different age groups. For a child aged 12-24 months (like this 14-month-old), three core principles apply. Statement (I) is correct: Breastfeeding remains a crucial source of nutrition and immunity and should be continued on demand ("as often as the child wants"). Statement (III) is correct: At this age, the child should be transitioning to family foods. It is recommended to offer food from the family pot, which has been appropriately modified (e.g., chopped, mashed) to be safe and easy for the child to eat. Statement (IV) is also correct: The recommended frequency for complementary feeding at this age is 3 to 4 meals each day, supplemented with 1-2 nutritious snacks as the child's appetite dictates, in addition to continued breastfeeding. Statement (II), while describing a form of "responsive feeding," is a very specific instruction on how to feed, whereas I, III, and IV are the fundamental IMNCI guidelines on what and how often to feed this age group.

103. For a sick child aged 4 years, which of the following are signs of "severe pneumonia or very severe disease", as per IMNCI (Integrated Management of Neonatal and Childhood Illness) Program?
I. Fast breathing (Greater than or equal to 40 breaths per minute)
II. Child vomits everything
III. Stridor in a calm child
IV. Chest indrawing
Select the correct answer using the code given below :

Click Here to Buy book on Amazon

(a) I and II
(b) II and III
(c) III and IV
(d) II and IV

Ans :

(c) III and IV
The IMNCI guidelines for a child aged 2 months to 5 years use a "traffic light" system. The "pink box" classification is "Severe Pneumonia or Very Severe Disease," which requires urgent referral. This diagnosis is made if the child has any General Danger Sign OR chest indrawing (IV) OR stridor in a calm child (III). The General Danger Signs include being unable to drink, convulsing, being lethargic/unconscious, or vomiting everything (II). The "yellow box" classification is "Pneumonia," which is diagnosed by the presence of fast breathing (I) (for a 4-year-old, this is $\geq$ 40 breaths/min). Therefore, statements II, III, and IV are all criteria for the severe "pink box" classification. Statement (I) is a criterion for the (non-severe) "yellow box." Since the options are pairs, the combination of (c) III and IV (Stridor and Chest indrawing) correctly lists the two specific respiratory signs that define severe pneumonia. Options (b) and (d) are also technically correct pairs from the "pink box," but (c) pairs the two respiratory severity signs.

104. In a child aged $3\frac{1}{2}$ years with an ear problem which one of these situations merits urgent referral to hospital?
(a) Pus seen draining from the ear, and discharge reported for less than 14 days
(b) Pus seen draining from the ear, and discharge reported for more than or equal to 14 days
(c) Tender swelling behind the ear
(d) Pus seen draining from both ears, irrespective of duration

Ans :

(c) Tender swelling behind the ear
In the IMNCI guidelines for assessing a child with an ear problem, the primary goal is to identify life-threatening complications that require immediate hospitalization. The most significant of these is mastoiditis, a bacterial infection of the mastoid bone. The cardinal clinical sign of mastoiditis is a tender swelling behind the ear (c). This finding places the child in the "pink" classification and requires urgent referral for parenteral antibiotics and potential surgical consultation. In contrast, pus draining from the ear is classified based on duration, not as an immediate emergency. Discharge for < 14 days (a) is "Acute Ear Infection," and discharge for $\geq$ 14 days (b) is "Chronic Ear Infection." Both are "yellow" classifications managed with antibiotics (oral for acute, topical for chronic) as an outpatient, assuming no danger signs or mastoiditis are present. The number of ears involved (d) does not change this basic management.

105. Upto 10% of cases of Autism Spectrum Disorder (ASD) may be caused by genetic conditions. Which of the following are known to be associated with ASD?
I. Tuberous sclerosis
II. Fragile X syndrome
III. Prader-Willi syndrome
IV. Patau syndrome
Select the correct answer using the code given below :
(a) I and II
(b) I and III
(c) II and III
(d) I and IV

Ans :

(a) I and II
While most cases of Autism Spectrum Disorder (ASD) are idiopathic, a significant minority are associated with specific genetic syndromes. Fragile X syndrome (II) is the most common monogenic cause of both ASD and inherited intellectual disability, resulting from a repeat expansion in the FMR1 gene. Tuberous sclerosis complex (I), an autosomal dominant neurocutaneous disorder, also has a very high co-occurrence with ASD, with studies showing 25-50% of individuals with TSC also meet the diagnostic criteria for ASD. These two (I and II) are the strongest and most well-established associations on the list. Prader-Willi syndrome (III) has a complex behavioral phenotype that can include obsessive-compulsive behaviors, but its association with a classic ASD diagnosis is less common. Patau syndrome (IV) (Trisomy 13) is a severe chromosomal aneuploidy with major structural malformations and a very short life

NODIA

expectancy; it is not a recognized cause of ASD.

106. Which of the following are charac- teristic features of cerebral palsy?
I. Disorder of movement
II. Permanent nature
III. Progressive course
IV. Disorder of posture
Select the correct answer using the code given below :
(a) I, II and III
(b) I, II and IV
(c) II, III and IV
(d) I, III and IV

Ans :

(b) I, II and IV
Cerebral palsy (CP) is defined by a specific set of criteria. It is a group of disorders that primarily affect movement (I) and posture (IV), leading to activity limitations. These disorders are permanent (II), meaning they are not transient and will last throughout the individual's life. A critical part of the definition is that these motor impairments are due to a non-progressive disturbance that occurred in the developing fetal or infant brain. Therefore, the statement that CP has a progressive course (III) is incorrect. This is a key feature that distinguishes CP from neurodegenerative disorders. While the symptoms of CP (like muscle contractures or joint deformities) may change or worsen over time, the underlying brain injury itself does not get worse. Thus, the correct characteristic features are I, II, and IV.

107. Which of the following are the tools used for classification of spasticity in a child with cerebral palsy?
I. Gross Motor Function Classifica- tion System
II. Medical Research Council System
III. Modified Connors Scale
IV. Modified Ashworth Scale
Select the correct answer using the code given below:
(a) I and II
(b) II and III
(c) III and IV
(d) I and IV

Ans :

(d) I and IV
This question asks for tools used in the classification of spasticity or in a child with spastic CP. The Modified Ashworth Scale (IV) is the most direct answer; it is the most widely used clinical scale specifically designed to grade or "classify" the severity of spasticity (increased muscle tone) by assessing resistance to passive movement. The Gross Motor Function Classification System (GMFCS) (I) is also a fundamental tool in cerebral palsy. It does not classify spasticity itself, but rather classifies the child's overall functional mobility (e.g., from Level I, walking independently, to Level V, fully dependent for mobility). This functional level is largely a consequence of the child's spasticity and motor control. The Medical Research Council (MRC) System (II) is used to grade muscle power/strength, not spasticity. The Modified Connors Scale (III) is a questionnaire for diagnosing ADHD. Therefore, in the comprehensive assessment and classification of a child with spastic CP, both the GMFCS and the Modified Ashworth Scale are essential tools.

108. Which of the following medications may be used in a child diagnosed with Attention Deficit Hyperactivity Disorder?
I. Carbamazepine
II. Methylphenidate
III. Atomoxetine
IV. Clonazepam
Select the correct answer using the code given below :
(a) I and III
(b) II and III
(c) II and IV
(d) I and IV

Ans :

(b) II and III
The primary medications used to treat Attention Deficit Hyperactivity Disorder (ADHD) fall into two main categories: stimulants and non-stimulants. Methylphenidate (II) (e.g., Ritalin, Concerta) is a central nervous system stimulant and is the most common, first-line medication for ADHD. It is highly effective at improving focus and reducing hyperactivity. Atomoxetine (III) (e.g., Strattera) is the leading non-stimulant medication approved for ADHD. It is a selective norepinephrine reuptake inhibitor (SNRI) and is a valuable alternative for children who cannot

Downloaded from www.pdf.tube

take stimulants. In contrast, Carbamazepine (I) is an anticonvulsant and mood stabilizer. Clonazepam (IV) is a benzodiazepine used for anxiety, seizures, or panic disorder. Neither is a standard treatment for the core symptoms of ADHD. Therefore, the correct medications listed are Methylphenidate and Atomoxetine.

109. Which of the following are included as a "Deficiency" under the Rashtriya Bal Swasthya Karyakram (RBSK)?

I. Hypothyroidism
II. Vitamin A deficiency
III. Anemia
IV. Vitamin D deficiency

Select the correct answer using the code given below:

(a) I, II and III
(b) I, II and IV
(c) I, III and IV
(d) II, III and IV

Ans :

(d) II, III and IV

The Rashtriya Bal Swasthya Karyakram (RBSK) program screens children for the "4 D's": Defects at birth, Deficiencies, Diseases, and Developmental delays. The category of "Deficiencies" specifically targets conditions arising from nutritional or micronutrient inadequacies. The conditions explicitly listed under this category include: Vitamin A deficiency (II) (manifesting as Bitot's spots), Anemia (III) (severe anemia), and Vitamin D deficiency (IV) (manifesting as rickets). This category also includes Iodine Deficiency Disorders and Severe Acute Malnutrition. Congenital Hypothyroidism (I) is a critical condition that is also screened for under RBSK, but it is classified under the "Diseases" category (as an endocrine disorder), not as a nutritional deficiency. Therefore, the correct items from the "Deficiencies" list are II, III, and IV.

110. Which of the following statements are correct regarding management of hyperkalemia in a child?

I. Intravenous calcium (gluconate or chloride) is given to enhance cellular uptake of potassium
II. Beta adrenergic agonists (salbuta- mol or terbutaline) are used to stabilize myocardial cell mem- brane
III. Regular insulin and glucose given intravenously enhance cellular uptake of potassium
IV. Sodium polystyrene sulfonate enhances total body potassium elimination

Select the answer using the code given below:

(a) I and II
(b) II and III
(c) I and IV
(d) III and IV

Ans :

(d) III and IV

The management of hyperkalemia is a multi-step process. Statement (III) is correct: A combination of intravenous regular insulin and glucose is a first-line therapy. Insulin activates the Na+/K+-ATPase pump, which enhances the cellular uptake of potassium, shifting it from the blood into the cells. Statement (IV) is also correct: Sodium polystyrene sulfonate (a cation-exchange resin) works in the colon to bind potassium in exchange for sodium. This bound potassium is then excreted in the feces, thus enhancing total body potassium elimination. Statement (I) is incorrect: Intravenous calcium does not affect potassium levels; its critical role is to stabilize the myocardial cell membrane to protect against fatal arrhythmias. Statement (II) is incorrect: Beta-adrenergic agonists (like salbutamol) work similarly to insulin; they enhance cellular uptake of potassium, they do not stabilize the myocardial membrane.

111. Which of the following statements are correct about oral rotavirus vaccines ?

I. The storage should be at $2 - 8^{\circ}C$
II. The vaccine should be used within 2 hours of reconstitution or opening
III. Past history of intussusception is a contraindication
IV. The vaccine can be given if the baby has ongoing diarrhoea

Select the answer using the code given below:

(a) I and II
(b) III and IV
(c) I and III
(d) II and IV

Ans :

(b) III and IV

Let's evaluate the statements on the oral rotavirus

NODIA

vaccine. Statement (III) is correct: A past history of intussusception is the primary absolute contraindication for the rotavirus vaccine. This is because the vaccine itself carries a very small (approximately 1-2 per 100,000) risk of causing intussusception, and this risk is considered unacceptable in a child who has already had the condition. Statement (IV) is correct: Mild illness, including ongoing diarrhoea or gastroenteritis, is not a contraindication. The vaccine should be given on schedule to avoid missed opportunities. Statement (I) is correct in that the vaccine is stored at +2 to +8°C, but it is also heat-sensitive, and some rotavirus vaccines (like Rotavac) have a vaccine vial monitor (VVM). Statement (II) is incorrect; reconstituted vaccines (like Rotavac) should be used promptly, typically within 4-6 hours, not 2 hours. Furthermore, liquid multi-dose vials (like Rotasiil) may be kept for up to 28 days under the open-vial policy. Given the options, (III) and (IV) are both clear, correct, and clinically important guidelines.

112. A child can make a tower of 3 blocks, runs, copies his mother while sweeping and has a vocabulary of 8-10 words. His developmental age is
(a) 12 months
(b) 15 months
(c) 18 months
(d) 24 months

Ans :

(c) 18 months
The constellation of milestones described is classic for an 18-month-old child.
1. Fine Motor: A child learns to build a tower of 2 blocks at 15 months and progresses to a tower of 3-4 blocks at 18 months.
2. Gross Motor: A child walks well at 15 months and begins to run (often stiffly) at 18 months.
3. Social/Adaptive: Domestic mimicry, such as "helping" with household chores like sweeping, is a hallmark 18-month skill.
4. Language: Vocabulary expands from 3-5 words at 15 months to about 8-10 (or more) words at 18 months.

These skills are too advanced for a 15-month-old and not as advanced as a 24-month-old (who can build a 6-7 block tower and speak in 2-word sentences).

113. A child can ride a tricycle, copies a circle, knows name and gender. The developmental age of this child is
(a) 2 years
(b) 3 years
(c) 4 years
(d) 5 years

Ans :

(b) 3 years
These milestones are all characteristic of a 3-year-old child.
1. Gross Motor: The ability to pedal and ride a tricycle is a key gross motor skill that emerges at 3 years.
2. Fine Motor/Vision: Drawing skills follow a typical progression: copying a vertical line at 2 years, copying a circle at 3 years, and copying a cross or square at 4 years.
3. Language/Social: By age 3, a child's sense of self is developed to the point where they can confidently state their own name and gender. They also typically speak in 3-word sentences.

A 2-year-old would be running and drawing lines, while a 4-year-old would be hopping on one foot and drawing a cross.

114. A teen boy with birth weight of 2-8 kg is born to a primigravida mother through vaginal delivery and cried immediately after birth. Which of the following statements are correct regarding his initial care after birth?
I. The baby should be initiated on breast feeding within one hour of birth
II. The baby should be kept in a separate area from the mother
III. The baby should be administered with 0-5 mg of vitamin K intra- muscularly
IV. The baby should be thoroughly examined for congenital malfor- mations from head to toe

Select the answer using the code given below:
(a) I and II
(b) I and III
(c) II and III
(d) I and IV

Ans :

(d) I and IV
Assuming "teen boy" is a typo for "term boy," this question describes the routine care of a healthy neonate (birth weight 2.8 kg). Statement (I) is

Click Here to Buy book on Amazon

correct: Initiating breastfeeding within the first hour of life ("golden hour") is a cornerstone of newborn care, promoting bonding, colostrum intake, and successful lactation. Statement (IV) is also correct: A thorough head-to-toe physical examination is mandatory for every newborn to screen for any congenital malformations, birth injuries, or signs of illness. Statement (II) is incorrect: The standard of care is "rooming-in," where the baby stays with the mother to facilitate bonding and on-demand feeding, not in a separate area. Statement (III) is incorrect: The standard dose of intramuscular vitamin K for a term infant (weighing > 1 kg) is 1.0 mg. The 0.5 mg dose is reserved for preterm infants weighing ≤ 1 kg.

115. Which one of the following oral drugs may be used in the management of super-refractory status epilepticus?
(a) Clonazepam
(b) Clobazam
(c) Lamotrigine
(d) Topiramate

Ans :

(d) Topiramate
Super-refractory status epilepticus (SRSE) is a life-threatening state where seizures persist or recur ≥ 24 hours after the initiation of continuous anesthetic infusions (e.g., midazolam, propofol). Management involves adding multiple non-anesthetic antiepileptic drugs (AEDs) to achieve burst suppression and allow the anesthetic to be weaned. Topiramate is a broad-spectrum AED that is a common choice in this setting. It can be administered as a slurry via a nasogastric tube, and a loading dose can be given for a rapid effect. Its multiple mechanisms of action (e.g., Na+ channel blockade, GABA-A modulation, AMPA/kainate antagonism) are advantageous when other agents have failed. Lamotrigine (c) is not used in this acute setting as it requires a very slow titration over weeks due to the risk of Stevens-Johnson syndrome. Oral benzodiazepines like Clobazam (b) or Clonazepam (a) are not the primary agents used to break SRSE.

116. Which of the following statements are correct regarding the use of benzo- diazepines in the initial management of status epilepticus?
I. Upto two doses may be used 5 minutes apart, if seizures are not controlled
II. For Lorazepam, only a single dose should be used, even if seizures are not controlled
III. Dose of midazolam at this stage is $1\text{–}15\ \mu g/kg/\min$ infusion
IV. Dose of both lorazepam and midazolam is $0.1\ \text{mg/kg}$
Select the answer using the code given below:
(a) I and III
(b) I and IV
(c) II and III
(d) II and IV

Ans :

(b) I and IV
This question addresses the emergent, first-line (0-5 minute) management of status epilepticus (SE). Statement (I) is correct: The standard protocol is to administer a single bolus of a benzodiazepine (e.g., IV lorazepam, IV diazepam, or IM midazolam). If seizures persist after 5 minutes, a second dose of the benzodiazepine can and should be given. This directly proves that Statement (II) is incorrect. Statement (IV) is correct: The recommended intravenous bolus dose for lorazepam is 0.1 mg/kg. The intravenous bolus dose for midazolam is 0.1-0.2 mg/kg. Therefore, 0.1 mg/kg is a correct and standard dose for both in this context. Statement (III) is incorrect: A dose of 1-15 μg/kg/min is a continuous infusion rate. This is a third-line therapy used for refractory SE, not the initial management.

117. Which of the following statements are correct regarding hypernatremia in children?
I. Diabetes insipidus due to a defi- ciency of antidiuretic hormone (ADH) may cause hypernatremia
II. Addison disease may be asso- ciated with hypernatremia
III. Use of boiled skimmed milk can lead to hypernatremia
IV. Use of lactulose can lead to hypernatremia
Select the answer using the code given below:
(a) I, III and IV
(b) II, III and IV
(c) I, II and III
(d) I, II and IV

Ans :

NODIA

(a) I, III and IV

Hypernatremia is caused by a net loss of free water or a net gain of sodium. Statement (I) is correct: Central Diabetes Insipidus is a deficiency of ADH, leading to the kidney's inability to concentrate urine. This results in massive free water loss, which causes hypernatremia if water intake is inadequate. Statement (III) is correct: Giving an infant boiled skimmed milk or improperly concentrated formula provides a high renal solute load (sodium, protein). The infant's kidneys must excrete this solute, which causes an osmotic diuresis, leading to significant free water loss and hypernatremic dehydration. Statement (IV) is correct: Lactulose is an osmotic laxative. It draws large volumes of water into the stool, causing osmotic diarrhea. This large loss of free water can lead to dehydration and hypernatremia. Statement (II) is incorrect: Addison disease (primary adrenal insufficiency) causes a deficiency of aldosterone, which leads to renal salt (sodium) wasting and subsequent hyponatremia.

118. Which of the following statements are correct regarding the management of gastrointestinal bleeding in children?

I. Somatostatin or octreotide infu- sion should be given for at least 7 days after stoppage of initial bleeding to prevent rebleeding
II. Endoscopic Sclerotherapy (EST) involves endoscopic injection of N-butyl-2-cyanoacrylate or iso- butyl-2-cyanoacrylate
III. EST has upto 90% efficacy in controlling acute bleeding
IV. Following an episode of acute variceal bleeding, all patients should receive secondary prophy- laxis to prevent rebleeding

Select the answer using the code given below:

(a) I and II
(b) I and III
(c) III and IV
(d) II and IV

Ans :

(c) III and IV

This question pertains to the management of acute variceal bleeding. Statement (III) is correct: Endoscopic therapies, which include Endoscopic Sclerotherapy (EST) and endoscopic variceal ligation (EVL), are the first-line treatments. These interventions are highly effective and can successfully control the acute bleeding episode in 80-90% of cases. Statement (IV) is also correct: After a child survives an acute variceal bleed, the risk of rebleeding is very high. Therefore, it is mandatory to initiate secondary prophylaxis to prevent recurrence. This typically involves a combination of non-selective beta-blockers (e.g., propranolol) and a program of serial endoscopic band ligation. Statement (I) is incorrect: Vasoactive drugs like octreotide are given for 3-5 days, not 7 days. Statement (II) is incorrect; it confuses two different procedures. EST involves injecting a sclerosant (like ethanolamine oleate). The injection of N-butyl-2-cyanoacrylate (glue) is a different technique called variceal obturation, typically used for gastric varices.

119. Which of the following are advantages of endotracheal intubation, in a child requiring pediatric advanced life support?

I. Inspiratory time can be controlled
II. Positive end-expiratory pressure can be provided
III. Peak expiratory pressure can be controlled
IV. Reduced risk of aspiration of gastric contents

Select the correct answer using the code given below:

(a) I, II and III
(b) I, II and IV
(c) I, III and IV
(d) II, III and IV

Ans :

(b) I, II and IV

Endotracheal intubation (ETI) offers numerous advantages over bag-mask ventilation by providing a secure, definitive airway. Statement (I) is correct: Once a child is intubated and connected to a mechanical ventilator, operators can precisely set and control parameters like inspiratory time, respiratory rate, and volume. Statement (II) is correct: ETI is necessary for the effective delivery of Positive End-Expiratory Pressure (PEEP), which is crucial for stenting open collapsed alveoli and improving oxygenation in lung diseases. Statement (IV) is correct: A cuffed endotracheal tube seals the trachea, providing definitive protection of the airway and reducing the risk of aspiration of gastric contents, a common and dangerous

NODIA

complication during resuscitation. Statement (III) is incorrect: "Peak expiratory pressure" is not a standard controlled variable. Ventilators are set to control peak inspiratory pressure (PIP) or volume, and positive end-expiratory pressure (PEEP).

120. Which of the following are causes of hypocalcemia in a child?

I. Hypomagnesemia
II. Hypophosphatemia
III. Metabolic acidosis
IV. Pseudohypoparathyroidism

Select the correct answer using the code given below :

(a) I and II
(b) II and III
(c) III and IV
(d) I and IV

Ans :

(d) I and IV

Hypocalcemia (low serum calcium) is a common pediatric electrolyte abnormality with several causes. Statement (I) is correct: Hypomagnesemia is a critical cause. Magnesium is essential for both the secretion of parathyroid hormone (PTH) and for PTH to act on its target tissues. Severe magnesium deficiency leads to functional hypoparathyroidism and PTH resistance, causing hypocalcemia. Statement (IV) is correct: Pseudohypoparathyroidism is a genetic disorder where the kidneys and bone are resistant to the effects of PTH. Even though PTH levels are high, the body cannot respond appropriately, leading to hypocalcemia and hyperphosphatemia. Statement (II) is incorrect: Hyperphosphatemia (e.g., in renal failure or tumor lysis syndrome) causes hypocalcemia by binding calcium. Hypophosphatemia would tend to increase serum calcium. Statement (III) is incorrect: Metabolic alkalosis (not acidosis) causes symptomatic hypocalcemia by increasing the binding of calcium to albumin, which lowers the ionized (active) fraction. Acidosis does the opposite, increasing ionized calcium.

****

Downloaded from www.pdf.tube

STUDYING FROM PDFs?

THINK AGAIN.

If you are studying only from PDFs,
you are wasting valuable time.

Research shows that learning from

PRINTED BOOKS has up to

4× HIGHER RETENTION

than studying from screens.

PRINT BOOK = BETTER MEMORY

PDF = LOWER RETENTION

Those who study from **PRINTED BOOKS**
move **AHEAD.**

Others are left **BEHIND**
in competition.

In competitive exams,
being average is not enough.

STAY ONE STEP AHEAD.

NODIA

CHAPTER 01

GENERAL MEDICINE (CORE SYSTEMS)

1. The height of the Jugular Venous Pulse is determined by :
(a) Right atrial pressure
(b) Right ventricle pressure
(c) Left atrial pressure
(d) Left ventricle pressure

2024

2. The SA node is situated at the junction of :
(a) SVC and RA
(b) SVC and LA
(c) LA and LV
(d) IVC and RA

2024

3. High output cardiac failure is caused by which of the following diseases ?
1. Beri-beri
2. Severe anaemia
3. Thyrotoxicosis

Select the correct answer using the code given below :
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2024

4. Reverse splitting of second heart sound is most commonly seen in :
(a) ASD
(b) Severe MR
(c) LBBB
(d) Pulmonary hypertension

2024

5. Which of the following are major criteria under the Jones Criteria for Acute Rheumatic Fever ?
1. Chorea
2. Erythema Marginatum
3. Subcutaneous Nodules
4. Polyarthralgia

Select the correct answer using the code given below :
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2024

6. A 70-year-old man with dyspnoea on exertion has been found to have a single second heart sound and a loud diamond-shaped, rough quality systolic murmur best heard at the right 2nd intercostal space, radiating to the right carotid artery. Which one of the following is the likely diagnosis ?
(a) Patent ductus arteriosus
(b) Ventricular septal defect
(c) Aortic stenosis
(d) Pulmonary stenosis

2024

7. Which one of the following is the appropriate scoring system used to assess the risk of stroke in patients of non-valvular chronic atrial fibrillation on oral anticoagulation ?
(a) HAS-BLED
(b) AMT-4
(c) CURB-65
(d) CHA_2DS_2-VASc

2024

8. Consider the following statements with regard to pulmonary embolism :
1. Unexplained breathlessness is the most common symptom.
2. When congestive heart failure or pneumonia fail to improve despite standard medical treatment, occult pulmonary embolism should be considered.

Click Here to Buy book on Amazon

3. Patients with high clinical likelihood of venous thromboembolism should first undergo D-dimer testing alone without obligatory imaging tests.

Which of the statements given above are correct ?

(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2024

9. Consider the following criteria :

1. Pleural fluid protein : Serum protein ratio 0·5
2. Pleural fluid LDH : Serum LDH ratio 0·6
3. Pleural fluid LDH Two-thirds of the upper limit of normal serum LDH

Which of the above criteria, if present in pleural fluid, will indicate an exudate ?

(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2024

10. Which of the following statements are correct with regard to clubbing ?

1. It usually affects the fingers symmetrically.
2. It does not involve the toes.
3. It may be associated with malignant lung conditions.
4. It may recede following the lung transplantation in cystic fibrosis.

Select the answer using the code given below :

(a) 1, 2 and 3
(b) 1, 3 and 4
(c) 2, 3 and 4
(d) 1, 2 and 4

2024

11. Consider the following statements regarding Löfgren syndrome :

1. It is an acute illness and is more commonly seen in females.
2. It is a clinically distinct phenotype of sarcoidosis characterized by peripheral arthropathy and uveitis.
3. Clinical features include fever, erythema, nodosum and bilateral lymphadenopathy.

Which of the statements given above are correct ?

(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2024

12. The distance walked in 6 minutes is an indirect measure of which of the following variables of the 'BODE Index' which is used to assess the prognosis in chronic obstructive pulmonary disease ?

(a) Body Mass Index
(b) Degree of air flow obstruction
(c) Severity of dyspnoea
(d) Exercise capacity

2024

13. Which of the following are complications of acute pancreatitis ?

1. Hypoxia
2. Hypercalcemia
3. Hyperglycemia
4. Reduced serum albumin

Select the correct answer using the code given below :

(a) 1, 2 and 3
(b) 1, 3 and 4
(c) 2 and 3 only
(d) 3 and 4 only

2024

NODIA

14. The Gold Standard for diagnosis of Celiac disease is :

(a) Endoscopic small bowel biopsy
(b) Stool routine microscopy and culture
(c) Abdominal ultrasound
(d) Anti-parietal cell antibodies

2024

15. With regard to Helicobacter pylori eradication in peptic ulcer disease, consider the following statements :

1. Proton-pump inhibitor is taken with two antibiotics.
2. Treatment is prescribed for at least 7 days.
3. Treatment of Helicobacter pylori infection leads to vitamin B12 deficiency.
4. Patients requiring long-term NSAIDs should undergo Helicobacter pylori eradication therapy to reduce ulcer risk.

Which of the statements given above are correct ?

(a) 1, 2 and 3

(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2024

16. Which of the following are precipitating factors for hepatic encephalopathy ?
1. Hypokalemia
2. Septicemia
3. Increased dietary protein load

Select the correct answer using the code given below :
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2024

17. Which one of the following statements is correct regarding Upper Gastro-Intestinal Bleeding (UGIB) ?
(a) Esophageal varices are the most common cause.
(b) Eradication of Helicobacter pylori in patients with bleeding ulcers decreases the rebleeding rates to less than 5%.
(c) Patients with cardiovascular disease who are on aspirin for secondary prevention should not restart their aspirin.
(d) Transjugular Intrahepatic Portosystemic Shunt (TIPS) should be considered as therapy only after one week of hospitalization for acute variceal bleeding.

2024

18. Crigler-Najjar syndrome Type-I is inherited as an :
(a) Autosomal recessive disorder
(b) Autosomal dominant disorder
(c) X-linked recessive disorder
(d) X-linked dominant disorder

2024

19. Whipple's disease is characterized by the infiltration of small intestinal mucosa by 'foamy' macrophages. Which one of the following histological stains is characteristically used to stain them ?
(a) Sudan Black-B
(b) Gentian violet
(c) Methylene blue
(d) Periodic acid Schiff

2024

20. Poorly absorbed antibiotics are often used as adjunctive therapies in patients with hepatic encephalopathy. These may include :
(a) Tenofovir or Telbivudine
(b) Sofosbuvir or Velpatasur
(c) Levofloxacin or Clarithromycin
(d) Neomycin or Rifaximin

2024

21. When the serum ascites to albumin gradient (SAAG) is less than 1.1 gm/dL, then which of the following causes of ascites may be considered ?
1. Infection
2. Malignancy
3. Cardiac ascites
4. Portal hypertension

Select the correct answer using the code given below :
(a) 1, 3 and 4
(b) 1 and 2 only
(c) 3 and 4 only
(d) 1, 2 and 3

2024

22. A sigmoid configuration along with tapering beak-like deformity at the lower esophageal sphincter on barium swallow is a feature of :
(a) Diffuse esophageal spasm
(b) Squamous cell carcinoma of esophagus
(c) Achalasia cardia
(d) Barret's esophagus

2024

23. Consider the following findings in urine examination of suspected hematuria :

Dipstick test is positive for following component	**Urine microscopy**	**Etiology**
A: Myoglobinuria	D: White blood cells	G: Glomerular bleeding
B: Hematuria	E: No red cells	H: Intravascular hemolysis
C: Hemoglobinuria	F: Red cell casts	I: Rhabdomyolysis

Which one of the following triplets is correctly matched ?
(a) B, F, G
(b) A, D, I
(c) B, E, H

Downloaded from www.pdf.tube

(d) C, F, H

2024

24. Which of the following statements are correct regarding anti-glomerular basement membrane disease ?

1. It is a rare autoimmune disease which presents as rapidly progressive glomerulonephritis.
2. Antibodies are formed against α3 chain of type 4 collagen GBM.
3. The α3 chain is expressed in basement membrane of glomerulus and the retina.
4. The disease may be associated with retinal hemorrhage when it is known as Goodpasture syndrome.

Select the answer using the code given below :

(a) 1 and 2 only
(b) 2, 3 and 4 only
(c) 1, 3 and 4 only
(d) 1, 2, 3 and 4

2024

25. Which of the following are poor prognostic indicators in glomerular disease ?

1. Female sex
2. Hypertension
3. Persistent and severe proteinuria
4. Elevated creatinine levels at presentation

Select the correct answer using the code given below :

(a) 1 and 3 only
(b) 2 and 4 only
(c) 2, 3 and 4 only
(d) 1, 2, 3 and 4

2024

26. Which of the following are indications for a renal biopsy ?

1. Chronic kidney disease of uncertain etiology
2. Nephritic syndrome
3. Uncontrolled severe hypertension
4. Renal transplant dysfunction

Select the correct answer using the code given below :

(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2024

27. Which of the following is the correct range of Glomerular Filtration Rate (GFR) for Stage 2 chronic kidney disease ?

(a) 60 – 89 mL/min/1.73 m^2
(b) 45 – 59 mL/min/1.73 m^2
(c) 30 – 44 mL/min/1.73 m^2
(d) 15 – 29 mL/min/1.73 m^2

2024

28. A diagnosis of polycystic ovary syndrome requires the presence of which of the following clinical features ?

1. Menstrual irregularity
2. Clinical or biochemical androgen excess
3. Multiple cysts in the ovaries
4. BMI < 18·5 kg/m^2

Select the correct answer using the code given below :

(a) 1, 2 and 3
(b) 2, 3 and 4
(c) 1, 3 and 4
(d) 1, 2 and 4

2024

NODIA

29. A 40-year-old female with nephritic range proteinuria is found to have low serum complement levels. Which of the following can be the likely etiology?

1. Systemic lupus erythematosus
2. Post-infectious glomerulonephritis
3. Infective endocarditis
4. Mesangio-capillary glomerulonephritis

Select the correct answer using the code given below:

(a) 1 and 2 only
(b) 3 and 4 only
(c) 1, 2 and 3
(d) 1, 2, 3 and 4

2024

30. Consider the following clinical features:

1. Hypomimia
2. Dysphonia
3. Festination gait
4. Cogwheel rigidity

Which of the features given above are generally present in Parkinsonism?

(a) 1, 2, 3 and 4
(b) 1, 2 and 4 only
(c) 3 and 4 only
(d) 1, 2 and 3 only

2024

31. Circuits between the basal ganglia and the motor cortex constitute the extra pyramidal system which controls muscle tone, body posture and the initiation of movement. Lesions of the extra pyramidal system present clinically with:
(a) Tremor and rigidity
(b) Seizures
(c) Urinary incontinence
(d) Muscle wasting

2024

32. Consider the following statements regarding Transient Global Amnesia (TGA):
1. TGA mainly affects middle aged persons who present with abrupt, discrete loss of anterograde memory lasting for few hours.
2. During the episode, the patients are unable to record new memories resulting in repetitive questioning.
3. Consciousness is impaired during the episode and the patient is unable to perform even simple motor functions.
4. After 4 – 6 hours, memory function and behaviour return to normal but the patient has complete and persistent amnesia for the duration of the episode.

Which of the statements given above are correct?
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2024

33. Contralateral homonymous lower quadrant anopia is the type of visual loss seen when the lesion is located at which one of the following anatomical locations?
(a) Frontal lobe
(b) Temporal lobe
(c) Parietal lobe
(d) Occipital lobe

2024

34. Which of the following correctly describes the primary position of the right eye in right 3rd cranial nerve palsy?
(a) Downwards and outwards
(b) Downwards and inwards
(c) Upwards and outwards
(d) Upwards and inwards

2024

35. Consider the following statements regarding cluster headache:
1. The headaches are periodic, beginning at the same time for weeks at a stretch.
2. Patients experience severe, unilateral periorbital pain which typically lasts from 30 – 90 minutes.
3. The headache is accompanied with autonomic features such as ipsilateral tearing, nasal congestion and conjunctival injection.
4. Subcutaneous injection of Sumatriptan or inhalation of 100% oxygen may be beneficial in halting acute attacks.

Which of the statements given above are correct?
(a) 3 and 4 only
(b) 1 and 2 only
(c) 1, 2 and 3
(d) 1, 2, 3 and 4

2024

36. A 22-year-old lady presented with complaint of chronic daily headache. She has prior history of migraine but increasingly unrelieved with analgesics. She has history of using Sumatriptan almost daily since the last three weeks. What is the most likely diagnosis?
(a) Sub-arachnoid hemorrhage
(b) Cluster headache
(c) Medication overuse headache
(d) Trigeminal neuralgia

2024

37. Consider the following with regard to trigger factors for seizures:
1. Flickering lights
2. Recreational drug misuse
3. Non-compliance to treatment with antiepileptic drugs
4. Sleep deprivation

Which of the factors given above are correct?
(a) 1 and 2 only
(b) 1, 2, 3 and 4
(c) 2 and 3 only
(d) 3 and 4 only

2024

38. A 75-year-old man presented with temporal headache, jaw pain, exacerbated by chewing and talking. Which one of the following investigations will most likely help in diagnosis?
(a) Temporal artery biopsy

Click Here to Buy book on Amazon

(b) Electromyography
(c) MRI of the brain
(d) Carotid colour Doppler

2024

39. The Rai staging system and Binet staging system are the two widely used staging systems used for staging which of the following hematological malignancies?
(a) Acute Myeloid Leukemia
(b) Chronic Myeloid Leukemia
(c) Acute Lymphoid Leukemia
(d) Chronic Lymphocytic Leukemia

2024

40. Patients suffering from which of the following conditions commonly present for several years in the dermatology OPD with eczematous or dermatitis skin lesions before being finally diagnosed with a T-cell lymphoma?
(a) Mycosis fungoides
(b) Psoriasis
(c) Acne vulgaris
(d) Onychomycosis

2024

41. Which of the following is an oral anticoagulant?
(a) Dabigatran
(b) Heparin
(c) Fondaparinux
(d) Bivalirudin

2024

42. A 39-year-old female presents with severe autoimmune hemolytic anemia. Which of the following should be the initial step in its management?
(a) Prednisolone
(b) Rituximab
(c) Emergency splenectomy
(d) Plasmapheresis

2024

43. Which one of the following is a cause of Secondary Hyperaldosteronism?
(a) Adrenal adenoma secreting aldosterone
(b) Idiopathic bilateral adrenal hyperplasia
(c) 11-deoxycorticosterone secreting adrenal tumour
(d) Inadequate renal perfusion due to renal artery stenosis

2024

44. Which one of the following diseases is characterized by destructive lymphoid infiltration of the thyroid gland leading to fibrosis and enlargement of the thyroid gland with an increased risk of developing thyroid lymphoma?
(a) de Quervain's Thyroiditis
(b) Multinodular Goitre
(c) Riedel's thyroiditis
(d) Hashimoto's thyroiditis

2024

45. A 52-year-old male diabetic presents with recurrent episodes of hypoglycemia. On examination, Pulse : 84 beats/minute, BP : 160/100 mm Hg, Chest and CVS examination unremarkable. Which of the following antihypertensive should be avoided in this patient?
(a) Propranolol
(b) Telmisartan
(c) Torsemide
(d) Amlodipine

2024

46. Which of the following are correct regarding Cortisol?
1. Levels are highest in the morning on waking.
2. Cortisol falls dramatically during an illness.
3. More than 95% circulating cortisol is protein bound.
4. It is the major glucocorticoid in humans and can also activate mineralocorticoid receptors.

Select the answer using the code given below :
(a) 1, 3 and 4
(b) 2, 3 and 4
(c) 1 and 3 only
(d) 1 and 2 only

2024

47. A patient presents with history of 'bones, stones and abdominal groans' — due to generalized aches and pains and renal calculus colic. Which is the most discriminatory blood investigation?
(a) Parathyroid hormone assay
(b) Thyroid function tests (free T3, free T4, TSH)
(c) Cortisol levels
(d) Insulin and C-peptide levels

2024

Downloaded from www.pdf.tube

48. With regards to treatment of thyrotoxicosis of Grave's disease, consider the following statements :
1. Propylthiouracil is suitable in breastfeeding patients.
2. Large goitre is an indication for thyroidectomy.
3. Radioiodine is recommended for management in pregnancy.
4. Agranulocytosis is a complication associated with carbimazole.

Which of the statements given above are correct ?
(a) 1, 2 and 3
(b) 2, 3 and 4
(c) 1, 2 and 4
(d) 1, 3 and 4

2024

49. With regard to management of hypothyroidism, consider the following statements :
1. Treatment is with levo thyroxine replacement.
2. It is taken as a single daily dose.
3. Average dose is 1·6 μgm/kg/day.
4. Full dose per weight should be started in those with coronary artery disease.

Which of the statements given above are correct ?
(a) 1, 2 and 3
(b) 2, 3 and 4
(c) 1, 2 and 4
(d) 1, 3 and 4

2024

50. Which of the following glucose lowering agent can be given as an injectable drug ?
(a) Pioglitazone
(b) Metformin
(c) Sitagliptin
(d) Semaglutide

2024

51. Which of the following findings are seen in Diabetic Retinopathy on fundus examination ?
1. Microaneurysm
2. Dot and blot hemorrhage
3. Retinal thickening
4. Neovascularization

Select the correct answer using the code given below :
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2024

52. Which one of the following disorders are caused by enzymatic defects in the heme biosynthesis pathway ?
(a) Porphyrias
(b) Myelodysplastic syndrome
(c) Hemophilias
(d) Plasma cell disorders

2024

53. Which of the following is an inhibitor of the intestinal mucosal transporter NPC1L1, responsible for the absorption of dietary and biliary cholesterol ?
(a) Atorvastatin
(b) Fenofibrate
(c) Metformin
(d) Ezetimibe

2024

54. Which one of the following is the most appropriate initial treatment for management of severe hypercalcemia ?
(a) Intravenous infusion of pamidronate
(b) Oral phosphate supplementation
(c) Intravenous infusion of normal saline
(d) Hemodialysis

2024

55. Which of the following are used in calculating the serum osmolality ?
1. Serum sodium
2. Glucose
3. Calcium
4. Blood urea nitrogen

Select the correct answer using the code given below :
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2024

56. Which one of the following statements is characteristic of Purpura fulminans ?
(a) Non-hemorrhagic bullae usually present over extremities
(b) Present as large ecchymosis with irregular shapes

NODIA

(c) Auto-immune disorder and never associated with any infection
(d) Asplenic patients are protected and do not develop this disease

2024

57. An elderly male presents with papular lesions on his face. The papules are with pearly telangiectatic border on sun-damaged skin. The likely diagnosis is :
(a) Squamous cell carcinoma
(b) Melanoma
(c) Basal cell carcinoma
(d) Actinic keratosis

2024

58. Allergic contact dermatitis is a manifestation of:
(a) Type 1 hypersensitivity
(b) Type 2 hypersensitivity
(c) Type 3 hypersensitivity
(d) Type 4 hypersensitivity

2024

59. Which one of the following is an example of non-scarring alopecia ?
(a) Linear scleroderma
(b) Cutaneous metastases
(c) Telogen effluvium
(d) Sarcoidosis

2024

60. Which of the following statements are correct in respect of scabies?
1. Male mite Sarcoptes scabiei are commonly transferred from an infected person to a non-infected person.
2. Norwegian scabies occur in immunodeficient patients.
3. Permethrin cream (5%) is used for treatment.
4. Pruritus intensifies at night and after hot shower.

Select the answer using the code given below :
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2024

61. Heberden's nodes are present mainly in :
(a) Rheumatoid arthritis
(b) Osteoarthritis
(c) Psoriatic arthritis
(d) Gouty arthritis

2024

62. A patient developed difficulty in standing from a seated position, walking up steps, squatting and lifting arms overhead. Chronic therapy with which of the following drugs is likely to result in such presentation?
(a) Acetaminophen
(b) Fexofenadine
(c) Glucocorticoids
(d) Metformin

2024

63. Hemorrhagic cystitis is a serious side effect of :
(a) Leflunomide
(b) Mycophenolate mofetil
(c) Cyclophosphamide
(d) Methotrexate

2024

64. Schober's test is used in the assessment of which one of the following clinical conditions ?
(a) Rheumatoid arthritis
(b) Systemic Lupus Erythematosus
(c) Ankylosing Spondylitis
(d) Psoriasis

2024

65. Urate crystals are described as having the following shape :
(a) Short and stout
(b) Long and needle-like
(c) Small and triangular
(d) Large and rhomboid

2024

66. Anti-citrullinated peptide antibody is useful in diagnosis of :
(a) Rheumatoid arthritis
(b) Sjogren's syndrome
(c) Scleroderma
(d) Systemic Lupus Erythematosus

2024

67. Which one of the following antibodies is commonly associated with Drug-induced Lupus ?
(a) Anti-centromere antibody
(b) Anti-Jo-1 antibody
(c) Anti-histone antibody
(d) Anti-RNP antibody

2024

Click Here to Buy book on Amazon

68. Long term treatment of bipolar disorder with lithium carbonate can cause which of the following adverse effects ?
1. Weight loss
2. Hypothyroidism
3. Increased levels of parathyroid hormone
4. Nephrogenic diabetes insipidus

Select the correct answer using the code given below :
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2024

69. Which of the following antidepressant drugs act by inhibition of monoamine oxidase ?
1. Phenelzine
2. Tranylcypromine
3. Dosulepin
4. Moclobemide

Select the correct answer using the code given below :
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2024

70. Which of the following are selective serotonin re-uptake inhibitors?
1. Escitalopram
2. Amitriptyline
3. Fluoxetine
4. Sertraline

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2024

71. Which of the following are First Rank Symptoms of acute schizophrenia?
1. Auditory hallucinations
2. Broadcasting of thoughts
3. Delusional perceptions
4. Delirium

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2024

72. Consider the following statements regarding Wernicke-Korsakoff syndrome:
1. It is a rare complication of chronic alcohol misuse characterised by ophthalmoplegia, ataxia and delirium.
2. There is damage to the mammillary bodies and dorsomedial nuclei of thalamus.
3. The underlying cause is deficiency of Vitamin B12 (Cobalamin).
4. The syndrome can also arise due to malabsorption or protracted vomiting.

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2024

NODIA

73. Which of the following are inherited causes of dementia?
1. Alzheimer's disease
2. Huntington's disease
3. Wilson's disease
4. Punch-drunk syndrome

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2024

74. Which of the following are classified as mood-stabilising psychotropic drugs?
1. Lithium
2. Valproate
3. Lamotrigine

Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2024

75. Which of the following statements are correct with regard to glucose homeostasis?

1. Insulin level rises postprandially.
2. Major portion of postprandial glucose is used by skeletal muscle.
3. Brain uses glucose in an insulin-dependent manner.
4. Glucagon is secreted during exercise.

Select the answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2024

76. Consider the following pancreatic hormones:
1. Insulin
2. Islet amyloid polypeptide or amylin
3. Glucagon
4. Somatostatin

Which of the above is/are secreted by beta cells of the pancreatic islets?
(a) 1 only
(b) 2 and 3
(c) 1 and 2
(d) 1 and 4

2024

77. Which of the following are used in the management of hyperkalemia ?
1. 10% calcium gluconate intravenously
2. Regular insulin and intravenous glucose
3. Nebulized ipratropium bromide
4. Intravenous sodium bicarbonate

Select the correct answer using the code given below :
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2024

78. Nebulized salbutamol is used in the management of which of the following electrolyte abnormality ?
(a) Hypernatremia
(b) Hyperkalemia
(c) Hyponatremia
(d) Hypomagnesemia

2024

79. Thickened ventricular wall with normal diastolic function is a feature of
(a) hypertrophic cardiomyopathy
(b) restrictive cardiomyopathy
(c) endomyocardial fibrosis
(d) athlete's heart

2023

80. In which of the following cases does paradoxical splitting occur?
1. Severe aortic stenosis
2. Right bundle branch block
3. Right ventricular pacing
4. Hypertrophic obstructive cardiomyopathy

Select the correct answer using the code given below.
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2023

81. A patient with peripheral edema has the following findings on clinical examination :
A soft systolic murmur at the lower left sternal border with raised JVP showing prominent C-V wave. The murmur increases in intensity on deep inspiration
The most likely valvular abnormality is
(a) ventricular septal defect
(b) mitral regurgitation
(c) tricuspid regurgitation
(d) mitral valve prolapse

2023

82. Kussmaul's sign is a clinical feature of
(a) constrictive pericarditis
(b) hypertrophic obstructive cardiomyopathy
(c) anteroseptal myocardial infarction
(d) dilated cardiomyopathy

2023

83. A patient has a cardiac murmur that is best heard at the right second intercostal space. It increases with expiration. Also, the murmur reduces in intensity during sustained handgrip but increases in intensity on inhalation of amyl nitrite. The likely lesion is
(a) ventricular septal defect
(b) aortic stenosis
(c) hypertrophic obstructive cardiomyopathy
(d) mitral regurgitation

2023

84. In the modified Duke criteria for infective endocarditis, which one of the following is not a major criterion?

Downloaded from www.pdf.tube

(a) New partial dehiscence of prosthetic valve
(b) Positive blood culture
(c) Roth's spots
(d) New valvular regurgitation

2023

85. Which one of the following diseases affects predominantly large arteries?
(a) Granulomatosis with polyangiitis
(b) Polyarteritis nodosa
(c) Giant cell arteritis
(d) Eosinophilic granulomatosis with polyangiitis

2023

86. A decline in total lung capacity to less than 80% of patient's predictive value is an indication of
(a) restrictive lung disease
(b) obstructive lung disease
(c) pulmonary artery hypertension
(d) pulmonary embolism

2023

87. A 28-year male is suspected of having hypertrophic obstructive cardiomyopathy (HOCM). Which of the following statements are likely to be true on his examination?
1. Maneuvers that decrease LV preload will cause the murmur to intensify.
2. Maneuvers that decrease LV afterload will cause decrease in intensity of murmur.
3. Murmur of HOCM becomes softer with passive leg raising.
4. Murmur of HOCM becomes louder with squatting.

Select the correct answer using the code given below.
(a) 1 and 3
(b) 2 and 3
(c) 2 and 4
(d) 1 and 4

2023

88. A 56-year male, chronic heavy smoker, presented with breathlessness. On examination, pulse : 96/minute, BP : 112/70 mm Hg and a pansystolic murmur is showing Carvallo's sign with murmur getting louder on deep inspiration. Which one of the following statements is true regarding examination of JVP in him?
(a) V wave is attenuated.
(b) C wave is attenuated and V wave is accentuated.
(c) V wave and C wave merge.
(d) V wave and C wave merge and Y descent is blunted.

2023

89. Which one of the following is a manifestation of vascular phenomenon in modified Duke criteria?
(a) Osler's node
(b) Roth's spots
(c) Janeway's lesions
(d) Glomerulonephritis

2023

90. The volume of air remaining in the lungs after a normal expiration is called
(a) expiratory residual volume
(b) functional residual capacity
(c) residual volume
(d) vital capacity

2023

91. The investigation of choice for early follow-up in patients treated for anti-H. pylori drugs is
(a) urea breath test
(b) rapid urease test
(c) stool H. pylori antigen test
(d) serology for H. pylori

2023

NODIA

92. The most common non-pancreatic site for tumour distribution in Zollinger-Ellison syndrome is
(a) duodenum
(b) ovaries
(c) stomach
(d) liver

2023

93. The most common cause of shock in severe acute pancreatitis (SAP) is
(a) hypovolemic shock resulting from third space loss
(b) septic shock resulting from infected pancreatic necrosis
(c) cardiogenic shock resulting from SIRS
(d) abdominal compartment syndrome

2023

94. The most common causative agent for spontaneous bacterial peritonitis is
(a) Escherichia coli
(b) Enterococcus sp.
(c) Staphylococcus aureus

(d) Streptococcus viridans

2023

95. A 14-year boy came with chronic diarrhoea and malnutrition. The physician suspected celiac disease. Which of the following are correct in his diagnostic workup?
1. Presence of IgA antiendomysial antibody
2. Absence of reduced height of villi on intestinal biopsy
3. Increased lymphocytes in lamina propria in small intestine biopsy
4. Absence of tTG antibody in serum

Select the correct answer using the code given below.
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2023

96. Which of the following are recommended for management of tumour lysis syndrome?
1. Urinary alkalinization
2. Intravenous fluids
3. Rasburicase
4. Febuxostat

Select the correct answer using the code given below.
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2023

97. Focal seizures may be associated with which of the following?
1. Jacksonian march
2. Todd's paralysis
3. Epilepsia partialis continua

Select the correct answer using the code given below.
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2023

98. Typical absence seizures are characterized by
(a) abrupt 3 Hz spike-and-slow wave discharges on EEG
(b) postictal confusion in children
(c) multifocal structural abnormalities of brain
(d) less responsiveness to anti convulsants as compared to atypical absence seizures

2023

99. Which of the following are contra indications to thrombolysis in acute ischemic stroke?
1. Recent head injury
2. Recent MI
3. Hypertension 150/100 mm Hg
4. GI bleeding in last 3 weeks

Select the correct answer using the code given below.
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2023

100. Which one of the following distinguishes axonal degeneration from segmental demyelination on electrophysiological studies?
(a) Distal latency is normal in axonal degeneration and prolonged in segmental demyelination.
(b) Conduction velocity is slow in axonal degeneration and normal in segmental demyelination.
(c) Conduction block is present in axonal degeneration and absent in segmental demyelination.
(d) Temporal dispersion is prominent in axonal degeneration and absent in segmental demyelination.

2023

101. Which one of the following drugs helps to maintain abstinence by reducing craving for alcohol?
(a) Apomorphine
(b) Acamprosate
(c) Atropine
(d) Azathioprine

2023

102. The BCR-ABL 1 oncoprotein exhibits constitutive activity of which one of the following enzymes?
(a) Alanine kinase
(b) Tyrosine kinase
(c) Leucine kinase
(d) Cysteine kinase

2023

Click Here to Buy book on Amazon

103. Imatinib, Dasatinib, Nilotinib and Ponatinib are examples of which class of drugs?
(a) Interferons
(b) Monovalent antibodies
(c) Bivalent antibodies
(d) Tyrosine kinase inhibitors

2023

104. Helicobacter pylori infection is associated with the development of which one of the following lymphoid malignancies?
(a) Burkitt's lymphoma
(b) Hodgkin's lymphoma
(c) Mucosa-associated lymphoid tissue lymphoma
(d) Adult T-cell leukemia/lymphoma

2023

105. With regard to transfusion therapy, cryoprecipitate is a rich source of which of the following?
1. Fibrinogen
2. Clotting factor VIII
3. Clotting factor IX
4. von Willebrand factor

Select the correct answer using the code given below.
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2023

106. Which one of the following correctly describes the mode of inheritance of haemophilia B?
(a) Autosomal dominant
(b) Autosomal recessive
(c) X-linked dominant
(d) X-linked recessive

2023

107. Which one of the following conditions characteristically may present with a triad of hemolysis, pancytopenia and venous thrombosis?
(a) Glucose-6-phosphate dehydrogenase deficiency
(b) Hereditary spherocytosis
(c) Hemolytic uremic syndrome
(d) Paroxysmal nocturnal hemoglobinuria

2023

108. Which one of the following is associated with low MCV of red blood cells?
(a) Thalassemia
(b) Vitamin B12 deficiency anaemia
(c) Folate deficiency anaemia
(d) Sickle cell anaemia

2023

109. GnRH deficiency with hyposmia is typically seen in
(a) Kallmann syndrome
(b) Bardet-Biedl syndrome
(c) Prader-Willi syndrome
(d) Wallenberg syndrome

2023

110. Iodine has complex effects on thyroid function. Very high concentrations of iodine inhibit thyroid hormone synthesis and release. This effect is known as
(a) Wolff-Chaikoff effect
(b) Jod-Basedow effect
(c) reverse Wolff-Chaikoff effect
(d) reverse Jod-Basedow effect

2023

111. Consider the following pharmacological agents:
1. Propranolol
2. Sodium ipodate
3. Propylthiouracil
4. Liothyronine

Which of the above can be used for the treatment of thyrotoxic crisis?
(a) 3 only
(b) 1 and 2 only
(c) 1, 2 and 3
(d) 2, 3 and 4

2023

112. Consider the following pharmacological agents:
1. Liothyronine
2. Levothyroxine
3. Carbimazole
4. Sodium ipodate

Which of the above may be included in the treatment of myxoedema coma?
(a) 1 only
(b) 1 and 2
(c) 2 and 3
(d) 3 and 4

2023

NODIA

113. Which one of the following insulin preparations has the longest effective duration of action?
(a) Detemir
(b) Glargine
(c) NPH
(d) Degludec

2023

114. Functioning pituitary adenoma most commonly arises from which one of the following cells?
(a) Somatotroph
(b) Lactotroph
(c) Corticotroph
(d) Thyrotroph

2023

115. Low serum thyroglobulin levels are seen in
(a) thyrotoxicosis factitia
(b) subacute thyroiditis
(c) Graves' disease
(d) toxic multinodular goitre

2023

116. A 45-year-old male presented with polyuria, polydipsia and polyphagia for the last 3 months. His fasting plasma glucose is 106 mg/dL and random blood glucose is 220 mg/dL. Which one of the following statements is correct regarding his diagnosis?
(a) He has impaired glucose tolerance (IGT).
(b) He has definitive diagnosis of diabetes mellitus.
(c) He does not have diabetes mellitus.
(d) Diagnosis of diabetes mellitus is indeterminate as HbA1c value is not provided.

2023

117. Which one of the following statements is true regarding the use of SGLT2 inhibitor in management of diabetes mellitus?
(a) They are used in type-1, type-2 and pancreatogenic forms of diabetes mellitus.
(b) They cause increase in blood pressure by 3–6 mm Hg and hence avoided in hypertensive patients.
(c) Their glucose-lowering effect is dependent on insulin secretion and insulin sensitivity.
(d) Euglycemic diabetic ketoacidosis may occur during treatment if there is a concurrent illness.

2023

NODIA

118. A 50-year lady, who is a known case of rheumatoid arthritis, presents with obesity, moon facies, abdominal striae and hypertension. Overnight dexamethasone suppression test shows serum cortisol is less than 50 nmol/L, serum ACTH is less than 1·1 pmol/L. The adrenal imaging and brain CT/MRI imaging studies are unremarkable. The likely diagnosis is
(a) Cushing's disease
(b) ectopic ACTH-secreting tumour
(c) exogenous glucocorticoid use
(d) adrenal adenoma

2023

119. A 27-year lady underwent thyroidectomy for thyroid carcinoma. Post-operatively she started developing muscle cramps, perioral and peripheral paresthesia, and carpopedal spasm. Which one of the following interventions will be appropriate for this patient?
(a) Nerve conduction velocity in both upper and lower limbs and to administer methylcobalamin
(b) EMG of both lower limbs and to administer oral prednisolone
(c) Measure of serum ionized calcium and to administer IV calcium gluconate
(d) Measure of serum bicarbonate and to administer IV bicarbonate

2023

120. Which one of the following is an example of hypo gonadotropic hypogonadism?
(a) Kallmann's syndrome
(b) Klinefelter's syndrome
(c) Turner's syndrome
(d) Cryptorchidism

2023

121. A tall thin adolescent boy is found to have gynecomastia and small testes. His blood testosterone level is undetectable, and serum FSH and LH levels are elevated. Which one of the following is the likely karyotype pattern?
(a) 46 XY
(b) 45 XO
(c) 47 XXY
(d) 21 Trisomy

2023

122. Which of the following antidiabetic drugs may cause weight gain?

1. Glimepiride
2. Pioglitazone
3. NPH insulin
4. Sitagliptin

Select the correct answer using the code given below.

(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2023

123. Which of the following statements is/are correct for obesity?

1. Adiponectin levels are reduced in obesity.
2. Orlistat is a reversible inhibitor of lipase used for the treatment of obesity.
3. Liraglutide used for T2DM management can cause weight gain and not recommended in obese patients with T2DM.
4. Bariatric surgery is recommended in obese patients with BMI 30 kg/m^2 for long-term benefits.

Select the correct answer using the code given below.

(a) 1, 2 and 4
(b) 1 and 2 only
(c) 2, 3 and 4
(d) 1 only

2023

124. Which of the following drugs are effective in preventing uric acid nephropathy in patients receiving chemotherapy?

1. Probenecid
2. Forced saline diuresis
3. Rasburicase
4. Acetazolamide

Select the correct answer using the code given below.

(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2023

125. Which one of the following is a cause of relative erythrocytosis?

(a) High altitude
(b) Cardiorespiratory disease
(c) High-affinity hemoglobins
(d) Diuretics

2023

126. Which of the following statements are correct regarding UTI?

1. Urine is an excellent culture medium for bacteria.
2. Atrophic urethritis in post-menopausal women is a risk factor.
3. Antibiotics are recommended in all cases of asymptomatic bacteriuria.
4. Certain strains of E. coli have a particular propensity to invade urinary tract.

Select the correct answer using the code given below.

(a) 1 and 4 only
(b) 1, 2 and 3
(c) 2, 3 and 4
(d) 1, 2 and 4

2023

127. A 60-year-old diabetic female presents with acute myocardial infarction. ECG changes include ST elevation greater than 1 mm in lead aVR. The likely localization of thrombosis is in

(a) right coronary artery
(b) distal LAD
(c) left circumflex artery
(d) left main or proximal LAD

2023

128. Which one of the following antidiabetic drugs is recommended for weight loss in obese patients?

(a) Glimepiride
(b) Liraglutide
(c) Sitagliptin
(d) Insulin

2023

129. Consider the following statements regarding inflammatory bowel disease:

1. Ulcerative colitis (UC) involves terminal ileum and rarely causes proctitis.
2. Cobblestone appearance of bowel is seen in Crohn's disease.
3. Skip lesions are a characteristic of ulcerative colitis but never seen in Crohn's disease.
4. Ulcerative colitis is more common in smokers than non-smokers.

Which of the statements given above is/are correct?

(a) 1, 2 and 3
(b) 2, 3 and 4
(c) 3 and 4 only

Downloaded from www.pdf.tube

(d) 2 only

2023

130. Which of the following are typical physical findings in pericardial effusion?
1. Raised JVP
2. Hypotension
3. Oliguria
4. Water hammer pulse

Select the correct answer using the code given below.

2023

131. Which of the following conditions can produce a third heart sound (S_3) on auscultation?
1. Young age
2. Pregnancy
3. Left ventricular failure
4. Mitral stenosis

Select the correct answer using the code given below.

2023

132. Which of the following statements are true about PR interval?
1. It denotes atrial depolarization.
2. Normal duration is 0.12 second–0.20 second.
3. Prolongation denotes impaired AV nodal conduction.
4. A short PR interval occurs in WPW syndrome.

Select the correct answer using the code given below.

2023

133. Which one of the following hormones is responsible for gallbladder contraction and release of bile into duodenum?
(a) Secretin
(b) Gastrin
(c) Cholecystokinin
(d) Vasoactive intestinal peptide

2023

134. Consider the following statements regarding radiation enteritis and proctocolitis:
1. Diarrhoea in the acute phase should be treated with codeine or loperamide.
2. Surgery is the treatment of choice and involves resection of the injured intestine.
3. Sucralfate enemas and hyperbaric oxygen are effective treatments.
4. Small bowel strictures and rectovaginal fistulae may develop as chronic complications.

Which of the statements given above are correct?

2023

135. Consider the following statements with regard to jaundice:
1. Presence of scleral icterus indicates a serum bilirubin level of at least 3 mg/dL.
2. If the examiner suspects scleral icterus, second site to examine is underneath the tongue.
3. In long-standing jaundice, skin may become green due to reduction of bilirubin to biliverdin.
4. Sclerae have a particular affinity for bilirubin due to its high elastin content.

Which of the statements given above are correct?

2023

136. Carotenoderma, due to ingestion of excessive amounts of carotene-containing fruits and vegetables, can be distinguished from jaundice by sparing of which of the following?
(a) Palms
(b) Soles
(c) Nasolabial folds
(d) Sclerae

2023

137. Meares-Stamey test is used in which one of the following clinical conditions?
(a) Recurrent urinary tract infection in men
(b) Urinary tract infection in pregnant women
(c) Complicated cystitis in non-pregnant women
(d) Pelvic inflammatory disease

2023

138. Which one of the following drugs is associated with calciphylaxis in chronic kidney disease patients?
(a) Calcium channel blocker
(b) Warfarin
(c) Non-calcium-based phosphate binder
(d) Thiazide diuretic

2023

139. Consider the following pairs: Urinary sediments seen in AKI — Diagnosis

NODIA

	Urinary sediments seen in AKI	Diagnosis
1.	RBC casts	Malignant hypertension
2.	WBC casts	Pyelonephritis
3.	Pigmented casts	Vasculitis
4.	Granular casts	Myoglobinuria

How many of the pairs given above are correctly matched?
(a) Only one pair
(b) Only two pairs
(c) Only three pairs
(d) All four pairs

2023

140. Which one of the following is a clonal hematopoietic stem cell disorder in which phenotypically normal red blood cells, granulocytes and platelets accumulate in the absence of a recognizable physiological stimulus?
(a) Mastocytosis
(b) Polycythemia vera
(c) Primary myelofibrosis
(d) Essential thrombocytosis

2023

141. Which of the following insulin has a cloudy preparation and requires resupination prior to injection?
(a) Lente
(b) Glargine
(c) Detemir
(d) Degludec

2023

142. Which of the following statements are correct with regard to anorexia nervosa?
1. The illness is often precipitated by weight loss.
2. Food avoidance is common.
3. Body image is intact and there is no fear of weight gain.
4. Downy hair (lanugo) may develop on back, forearms and cheeks.

Select the correct answer using the code given below.

2023

143. Which of the following are adverse effects of loop-acting and thiazide diuretics?
1. Metabolic acidosis
2. Hypovolemia
3. Hyponatremia
4. Hypokalemia

Select the correct answer using the code given below.

2023

144. Which one of the following statements is correct with regard to peptic ulcer prophylaxis?
(a) Stress ulceration during clinical illness is uncommon.
(b) Ulcer prophylaxis should be continued once absorption of enteral feed is established.
(c) Proton-pump inhibitors (PPIs) are effective at reducing the incidence of ulceration.
(d) PPIs when used with antibiotics may decrease the risk of Clostridium difficile infection.

2023

145. Which of the following are the features of post-lumbar puncture headache?
1. Dull aching occipitofrontal headache
2. Worse on waking but improves during the day
3. Recumbency usually improves the headache within minutes

Select the correct answer using the code given below.

2023

146. Which of the following are correct with regard to alpha-1-antitrypsin deficiency?
1. Prolonged jaundice in neonatal period
2. Pulmonary emphysema in adulthood
3. Panniculitis is seen rarely
4. Autosomal dominant disorder

Select the correct answer using the code given below.

2023

147. Which of the following drugs can cause granulomatous liver injury?
1. Carbamazepine
2. Allopurinol
3. Diltiazem
4. Acetaminophen

Select the correct answer using the code given below.

2023

Click Here to Buy book on Amazon

148. A 52 year old man with history of coronary artery disease is currently on sublingual nitroglycerin 0.5 mg, SOS, metoprolol 50 mg twice a day, aspirin 75 mg once a day, enalapril 5 mg once a day, for the last one year. The patient is now complaining of breathlessness and wheeze. Which one of the following drugs is most likely to be implicated for this new symptom ?
(a) Enalapril
(b) Metoprolol
(c) Nitroglycerin
(d) Aspirin

2022

149. A patient with ischaemic heart disease on regular follow-up has a resting heart rate of 90 beats/minute. The patient is taking metoprolol 50 mg twice a day. Which one of the following drugs may be added to his prescription if he also has signs of heart failure ?
(a) Ranolazine
(b) Diclofenac
(c) Prednisolone
(d) Ivabradine

2022

150. Which of the following anti-coagulant agents can be administered by oral route ?
1. Rivaroxaban
2. Fondaparinux
3. Apixaban
4. Dabigatran

Select the correct answer using the code given below :
(a) 1 and 3 only
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

151. Which of the following drugs may be associated with leg swelling ?
1. Calcium channel blockers
2. NSAIDs
3. Glucocorticoids
4. Mineralocorticoids

Select the correct answer using the code given below :
(a) 1 and 2 only
(b) 2, 3 and 4 only
(c) 3 and 4 only
(d) 1, 2, 3 and 4

2022

152. Which of the following produce loud S1 on cardiac auscultation ?
1. Anaemia
2. Pregnancy
3. Thyrotoxicosis
4. Mitral regurgitation

Select the correct answer using the code given below :
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

153. Which of the following are correct about Ivabradine ?
1. It may be of use in severe heart failure
2. It acts on SA node
3. It reduces heart rate
4. It is effective in atrial fibrillation

Select the correct answer using the code given below :
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

154. Left atrial dilatation on X-ray chest is characterised by which of the following ?
1. Straight left heart border
2. Rounding of left heart border
3. Double cardiac shadow
4. Widening of the angle of carina

Select the correct answer using the code given below :
(a) 1 and 3 only
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

NODIA

155. A 30 year old male is being evaluated for shortness of breath. On examination of the jugular venous pulse (JVP), there is a rise in the JVP on inspiration. Which one of the following is most likely diagnosis ?
(a) Constrictive pericarditis
(b) Atrial septal defect
(c) Aortic regurgitation
(d) Severe mitral stenosis

2022

156. A 24 year old man presents with acute onset shortness of breath with precordial chest pain. ECG reveals ST elevation with upward concavity and PR segment depression in lead V2 to V6 and reciprocal changes in lead aVR. The most likely diagnosis is
(a) Anterior wall myocardial infarction
(b) Acute pericarditis
(c) Anterior wall aneurysm
(d) Aortic dissection

2022

157. Which of the following are Controller Therapies in the management of acute asthma ?
1. Anticholinergics
2. Systemic glucocorticoids
3. Inhaled glucocorticoids
4. Omalizumab

Select the correct answer using the code given below :
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

158. Low pleural fluid glucose (<60 mg%) may be observed in which of the following ?
1. Pyogenic pleural effusion
2. Rheumatoid pleuritis
3. Malignant pleural effusion
4. Hepatic hydrothorax

Select the correct answer using the code given below :
(a) 1, 2 and 3
(b) 1 and 2 only
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

159. Which of the following are correct regarding Idiopathic Pulmonary Fibrosis ?
1. Radiological pattern of usual interstitial pneumonia
2. Finger clubbing
3. More common in elderly

Select the correct answer using the code given below :
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2022

160. Diagnostic work-up for a case of suspected Bronchial asthma should reveal which of the following abnormalities ?
1. Reduced FEV_1/FVC
2. Increased functional residual volume
3. Reduced diffusion capacity
4. Increment in FEV_1 in response to inhaled bronchodilator

Select the correct answer using the code given below :
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1 and 4 only
(d) 2, 3 and 4

2022

161. Which of the following conditions predispose to obstructive sleep apnea?
1. Hyperthyroidism
2. Acromegaly
3. Obesity
4. Use of alcohol/sedatives

Select the correct answer using the code given below:
(a) 2 and 3 only
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

162. Which one of the following are markers of poor prognosis in acute pancreatitis?
1. Elderly individual
2. Increased white blood cell count
3. Low serum calcium
4. Hypercarbia

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

163. Which of the following are the common causes of acute pancreatitis?
1. Gallstone
2. Alcohol
3. Post-ERCP
4. Campylobacter jejuni

Downloaded from www.pdf.tube

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

164. Which of the following are the aetiologies of hemochromatosis?
1. Thalassemia
2. Anaemia of pyruvate kinase deficiency
3. Chronic cor pulmonale
4. Porphyria cutanea tarda

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1 and 4 only
(d) 2, 3 and 4

2022

165. Which of the following drugs are implicated in peptic ulcer disease, not caused by Helicobacter pylori and NSAIDs?
1. Clopidogrel
2. Glucocorticoids
3. Bisphosphonates
4. Colloidal bismuth subcitrate

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1 and 2 only
(c) 1, 3 and 4
(d) 2 and 4 only

2022

166. Which of the following are symptoms of irritable bowel syndrome?
1. Gas and flatulence
2. Abdominal pain
3. Blood in stools
4. Diarrhoea

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

167. Which of the following are correct in respect of jaundice?
1. Patients complain of darkening of urine before they notice jaundice
2. Jaundice is usually detectable with a serum bilirubin level of over 1.8 mg/dl
3. In Gilbert syndrome, jaundice is more noticeable after fasting

Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2022

168. Irritable bowel syndrome is favoured by which of the following?
1. Worsening of symptoms by stress
2. Recurrent abdominal discomfort
3. Age more than 50 years at onset
4. Alternating diarrhoea and constipation

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

169. The diagnosis of protein losing enteropathy can be confirmed by
(a) Hydrogen breath test
(b) Fecal clearance of alpha-1 antitrypsin
(c) Fecal ^{51}Cr labelled transthyretin level
(d) Fecal calprotectin level

2022

170. RBC casts on urine analysis are seen in which of the following?
1. Glomerulonephritis
2. Interstitial nephritis
3. Vasculitis
4. Malignant hypertension

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

171. Which of the following are correct regarding Essential Tremors?
1. It may present at any age

NODIA

2. Head is almost never involved
3. Tremor may improve with small amount of alcohol

Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2022

172. Which of the following drugs may be associated with Parkinson's disease?
1. Atypical anti-psychotic drugs
2. Lithium
3. MPTP (methyl-phenyl-tetra hydro-pyridine)

Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2022

173. Which of the following are suggestive of Parkinson's disease?
1. Lead pipe rigidity
2. Cog wheel rigidity
3. Festinating gait
4. Romberg test positive

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1 and 2 only
(c) 1 and 3 only
(d) 2, 3 and 4

2022

174. Which of the following are correct regarding Idiopathic Parkinson's disease?
1. Motor symptoms are almost always initially symmetrical
2. Non-motor symptoms include hyposmia and constipation
3. Cognition is spared in early disease
4. Speech may become softer and indistinct

Select the correct answer using the code given below:
(a) 2 and 3 only
(b) 1 and 4 only
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

175. Which of the following are correct with regard to Levodopa?
1. It is most effective for relieving tremors
2. Only a small portion of total drug reaches the brain
3. Nausea may be offset by domperidone
4. It may trigger hallucinations

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 2 and 4 only
(c) 1 and 3 only
(d) 2, 3 and 4

2022

176. Which of the following are risk factors for Stroke?
1. Sickle cell disease
2. Cigarette smoking
3. Hypofibrinogenaemia
4. Atrial fibrillation

Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2 and 4 only

2022

177. Which of the following are correct in respect of Myasthenia gravis?
1. Symptoms worsen towards the end of the day
2. There may be difficulty in chewing and swallowing
3. Acetylcholine receptors in the pre-junctional membrane are involved
4. Penicillamine may precipitate similar illness

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1 and 3 only
(d) 2 and 4 only

2022

178. Which of the following are the tests for functional assessment of encephalopathy?
1. Flapping tremors
2. Number connection test
3. Constructional apraxia

Click Here to Buy book on Amazon

Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2022

179. Which one of the following is correct regarding blood components in clinical practice?
(a) ABO blood group antigens are polypeptide chains on the surface of RBCs
(b) Platelets can be stored for up to 35 days
(c) Hemolytic disease of newborn occurs when mother's IgA anti RBC antibodies cross the placenta and lyse fetal RBCs
(d) Transfusion associated GVHD can be prevented by prior irradiation of transfused blood

2022

180. Which one of the following is an oral direct Thrombin inhibitor?
(a) Apixaban
(b) Rivaroxaban
(c) Dabigatran
(d) Argatroban

2022

181. Which of the following are correct with regard to metformin?
1. The maximum tolerated dose is 2000 mg/day
2. Lactic acidosis is the major adverse effect of metformin
3. It may lower the blood levels of Vitamin B12

Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2022

182. Which of the following statements are correct regarding short stature?
1. Linear bone growth rates are pituitary dependent
2. Normal bone age in a child with short stature suggests hormonal disorder
3. Final height in boys can be estimated by adding 6.5 cm to mid-parental height
4. Replacement therapy with recombinant GH restores growth velocity in GH-deficient children

Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

183. Which one of the following drugs used to treat Diabetes mellitus, is least likely to cause hypoglycemia?
(a) Insulin
(b) Glimepiride
(c) Sitagliptin
(d) Repaglinide

2022

184. Which of the following constitute differential diagnosis of hypocalcemia?
1. Hypomagnesaemia
2. Chronic alcoholism
3. Pseudohypoparathyroidism
4. Paget's disease

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1 and 2 only
(c) 3 and 4 only
(d) 2, 3 and 4

2022

185. Which of the following are useful for the treatment of Hirsutism?
1. Amiloride
2. Oestrogen
3. Finasteride
4. Spironolactone

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 3 and 4 only
(d) 2, 3 and 4

2022

186. Which of the following is a long acting insulin?
(a) Aspart
(b) Glargine
(c) Lispro
(d) Regular

Downloaded from www.pdf.tube

2022

187. A 15 year old girl presents with severe abdominal pain, vomiting, cold extremities, tachycardia and hypotension. Lab investigations show blood glucose 400 mg/dL, blood pH 6.9, urine ketones +++, and serum creatinine 1.4 mg/dL. She is promptly administered IV fluids and insulin. After 4 hours, she complains of inability to lift her limbs. What is the next step to be considered in her management?
(a) Intravenous normal saline
(b) Intravenous sodium bicarbonate
(c) Urine sample for ketones
(d) Potassium repletion

2022

188. Which one of the following is a subcutaneous preparation useful for treatment of osteoporosis?
(a) Denosumab
(b) Alendronate
(c) Zoledronic acid
(d) Raloxifene

2022

189. Which of the following are correct with regard to osteoporosis?
1. It does not cause symptoms until a fracture occurs
2. Vertebral fracture can present with loss of height, in absence of pain
3. Smoking is protective
4. It sometimes presents incidentally as radiological osteopenia

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

190. Which of the following are correct with regard to Ankylosing spondylitis?
1. Bamboo spine may be seen
2. Early morning back pain is rare
3. Uveitis is most common extra articular feature
4. It is more common in males

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

191. Carpel Tunnel Syndrome is associated with which of the following features?
1. Pain and tingling in hands at night
2. Weakness of thumb abduction
3. Loss of sensation over lateral half of the palm
4. Atrophy of hypothenar eminence

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

192. Which of the following can be used to monitor disease activity in rheumatoid arthritis?
1. Pain (visual analogue scale)
2. X-Ray of hands and wrists
3. DAS 28 score
4. ESR

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

193. Tests for graphesthesia and stereognosis are used clinically to assess
(a) Cortical sensation
(b) Posterior column
(c) Cerebellar function
(d) Lateral spinothalamic tract

2022

194. Purtscher's retinopathy may be associated with
(a) Acute fulminant hepatic failure
(b) Acute pancreatitis
(c) Acute peritonitis
(d) Acute cholecystitis

2022

195. Which of the following may constitute the characteristic triad of Zollinger-Ellison syndrome?
1. Severe peptic ulceration
2. Gastric acid hypersecretion

NODIA

3. Gastrinoma
4. Pancreatic Neuro-endocrine tumour

Select the correct answer using the code given below:
(a) 1 and 3 only
(b) 2, 3 and 4
(c) 1, 3 and 4
(d) 1, 2 and 4

2022

196. In a healthy young adult, what proportion of sleep time is comprised Rapid Eye Movement (REM) sleep?
(a) 5–10%
(b) 20–25%
(c) 45–50%
(d) 70–75%

2022

197. Which of the following drugs can cause Idiopathic Intracranial Hypertension?
1. Tetracycline
2. Retinoid
3. Vitamin A
4. Sulfonamides

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 2, 3 and 4
(c) 1, 3 and 4
(d) 1, 2 and 4

2022

198. As per the Gell and Coombs classification, Farmer's lung is which type of hypersensitivity disease?
(a) Type-I
(b) Type-II
(c) Type-III
(d) Type-IV

2022

199. Hormonal regulation of salt and water balance in a nephron occurs at
(a) Proximal Convoluted Tubule (PCT)
(b) Loop of Henle
(c) Distal Convoluted Tubule (DCT)
(d) Collecting Ducts

2022

200. Which one of the following parameters suggests pre-renal azotemia?
(a) Renal tubular epithelial cell casts
(b) Gromular (granular) casts in urine sediment
(c) Hyaline casts in urine sediment
(d) Fractional excretion of sodium >1%

2022

201. Most common cause of Chronic Kidney Disease (CKD) is
(a) Hypertension associated CKD
(b) Autosomal Dominant Polycystic Kidney Disease (ADPKD)
(c) Diabetic nephropathy
(d) Glomerulonephritis

2022

202. Which of the following statements regarding contrast induced nephrotoxicity are correct?
1. Diabetes Mellitus is a risk factor.
2. N-acetylcysteine can fully reverse the renal injury.
3. Hydration is necessary.
4. Omit Metformin if nephrotoxicity occurs.

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 2, 3 and 4
(d) 1, 3 and 4

2022

203. Which component of auto-regulation of glomerular filtration acts on the efferent arteriole?
(a) Autonomous myogenic reflex
(b) Tubuloglomerular feedback
(c) Angiotensin II mediated vasoconstriction
(d) None of the above

2022

204. Which of the following are consequences of nephrotic syndrome?
1. Increased lipoprotein synthesis
2. Low serum globulin levels
3. Increased serum aldosterone levels
4. Increased serum Antithrombin III levels

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2 and 3 only

2022

Click Here to Buy book on Amazon

205. Sickle cell syndromes are caused by a mutation in the β-globin gene. Which one of the following correctly describes the change?
(a) Sixth amino acid–glutamic acid is replaced by valine
(b) Twenty-sixth amino acid–glutamic acid is replaced by lysine
(c) Sixth amino acid–glutamic acid is replaced by lysine
(d) Ninety-eighth amino acid–valine is replaced by methionine

2022

206. In which of the following is a high reticulocyte production index seen?
1. Sickle cell disease
2. Vitamin B-12 deficiency
3. Glucose-6-phosphate dehydrogenase deficiency
4. Blood loss

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

207. Which one of the following combinations of drugs can be used for treatment of relapsed myeloma?
(a) Infliximab, Methotrexate, Dexamethasone
(b) Lenalidomide, Bortezomib, Dexamethasone
(c) Rituximab, Vincristine, Cytarabine
(d) Methotrexate, Doxorubicin, Prednisone

2022

208. Which of the following can be used in the initial management of heparin induced thrombocytopenia?
1. Fondaparinux
2. Rivaroxaban
3. Lepirudin
4. Warfarin

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

209. Red cell protoporphyrin levels will be raised in which of the following conditions?
1. Absolute iron deficiency
2. Relative iron deficiency
3. Lead poisoning

Select the correct answer using the code given below:
(a) 1 and 3 only
(b) 1 and 2 only
(c) 2 and 3 only
(d) 1, 2 and 3

2022

210. Negative Iron Balance is the first stage in the progression to Iron Deficiency Anaemia. Which of the following laboratory investigations will be found deranged in this stage, thereby pointing to early iron-store depletion?
1. Bone Marrow Iron Stores
2. Percent transferrin saturation
3. Serum ferritin
4. Total Iron Binding Capacity

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

211. Which of the following drugs carry a definite risk of causing clinical hemolysis in persons suffering from Glucose-6 phosphate dehydrogenase deficiency?
1. Primaquine
2. Dapsone
3. Cotrimoxazole
4. Nitrofurantoin

Select the correct answer using the code given below:
(a) 1, 3 and 4
(b) 1 and 2 only
(c) 2, 3 and 4 only
(d) 1, 2, 3 and 4

2022

212. A 40 year old male presented with complaints of generalized weakness, weight loss, abdominal discomfort and decreased appetite. On examination Splenomegaly (massive) was present. On investigation it was found that haemoglobin was 7.0 g/dL, platelet count – 8

NODIA

lakh per cubic mm, WBC – 90000 per cubic mm. Most probably this is the case of
(a) Chronic lymphocytic leukemia
(b) Chronic myeloid leukemia
(c) Acute lymphoblastic leukemia
(d) Acute myeloid leukemia

2022

213. Which of the following are risk factors for type 2 diabetes mellitus?
1. Family history of diabetes
2. Underweight
3. Physical inactivity
4. Polycystic ovary syndrome

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

214. A Thyroid Function Test report shows the following results:
TSH – Undetectable
T3 – Raised
T4 – Raised
Which one of the following will be the most likely interpretation on the basis of the above report?
(a) Hypothyroidism secondary to pituitary disease
(b) Transient thyroiditis in evolution
(c) Primary thyrotoxicosis
(d) Over treatment of hypothyroidism with Liothyronine

2022

215. Which of the following biochemical abnormality is seen in severe hyper-triglyceridemia?
(a) Psuedohyponatremia
(b) Metabolic alkalosis
(c) Hyperuricemia
(d) Hyperkalemia

2022

216. The first line investigation for diagnostic evaluation of patients with hypercalcemia is
(a) 24 hour urinary calcium excretion
(b) Serum phosphate levels
(c) Serum i PTH levels
(d) Serum vitamin D levels

2022

217. Which of the following are used in the treatment of Acne vulgaris?
1. Topical benzoyl peroxide
2. Topical antibiotics like clindamycin
3. Oral isotretinoin
4. Oral ivermectin

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

218. Which one of the following is a cause of scarring alopecia?
(a) Androgenic alopecia
(b) Alopecia Areata
(c) Syphilis
(d) Radiotherapy

2022

219. Which of the following are used as mood stabilizers for treatment of bipolar disorder?
1. Valproic acid
2. Lamotrigine
3. Carbamazepine
4. Propranolol

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

220. Which of the following statements with regard to arterio-venous fistula in dialysis patient are correct?
1. Distension and thickening of vessel wall occurs
2. Formed upto a year before dialysis is contemplated
3. Leg veins are usually preferred
4. Synthetic graft may be used if fistula formation is not possible

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

Downloaded from www.pdf.tube

2022

221. Which one of the following is an indication for self-injectable adrenaline (epinephrine)?
(a) Anaphylaxis to allergens that are difficult to avoid
(b) Cardiogenic shock
(c) Pheochromocytoma
(d) Complete heart block

2022

222. Which of the following are reversible causes of electromechanical dissociation seen in pulseless electrical activity?
1. Pericardial tamponade
2. Pulmonary thrombo-embolism
3. Hyperthermia
4. Hypokalemia

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

223. A 60-year-old man comes to emergency with history of chest pain, which is acute onset. The ECG shows ST depression and T waves inversion. Cardiac biomarkers in blood are not elevated. What will be the appropriate management ?
(a) Oxygen + Aspirin + Ticagrelor + Metoprolol
(b) Oxygen + Sublingual nitroglycerin + Anti platelets + Streptokinase
(c) Anti platelets + LMW Heparin subcutaneous
(d) Oxygen + Sublingual nitroglycerin + Digoxin

2021

224. Which one of the following is not a differential diagnosis of ST segment elevation in ECG ?
(a) Acute pericarditis
(b) Trauma to ventricles
(c) Hypothermia
(d) Hypocalcemia

2021

225. A 50-year-old man reports to Emergency with breathlessness, palpitations and acute chest pain. On auscultation, there is systolic murmur at apex and ECG shows ST elevations in anterior chest leads. Which one of the following would be the next choice of investigation ?
(a) Cardiac marker troponin T/I
(b) Echo cardiography
(c) TMT
(d) 24-hour holter monitoring

2021

226. Which of the following electrocardiographic findings are manifestations of digitalis intoxication ?
1. Ventricular bigeminy
2. Ventricular tachycardia
3. Atrial flutter
4. Atrial tachycardia with variable block

Select the correct answer using the code given below :
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2021

227. A 35-year-old patient presents in the Emergency with sudden onset palpitations. His heart rate is 150/minute and gets reverted after carotid massage. The most probable diagnosis is :
(a) Paroxysmal supraventricular tachycardia
(b) Ventricular tachycardia
(c) Ventricular fibrillation
(d) Atrial flutter with block

2021

228. Which one of the following statements is correct regarding Opening Snap in cardiac auscultation ?
(a) It is a high pitched diastolic sound.
(b) It is due to opening of stenosed aortic valve.
(c) It indicates pulmonary arterial hypertension.
(d) It precedes the aortic component of second heart sound.

2021

229. A 35-year-old labourer worker consulted a local medical practitioner for recurrent attack of chest pain. His elder brother had similar complaint and died at the age of 40 years. The labourer worker was advised to take sublingual nitroglycerin at the time of chest pain. But after taking nitroglycerin, the chest pain increased in intensity. Which one of the following is most likely ?
(a) Hypertrophic obstructive cardiomyopathy
(b) Chronic type A dissection of aorta
(c) Degenerative mitral regurgitation

NQDIA

(d) Sub-acute bacterial endocarditis involving aortic valve

2021

230. A patient with atrial fibrillation on regular treatment presents with photosensitivity, skin discoloration and peripheral neuropathy. Which drug may be implicated ?
(a) Digoxin
(b) Disopyramide
(c) Amiodarone
(d) Bisoprolol

2021

231. Which of the following are categorized under obstructive lung disease ?
1. Bronchial asthma
2. Bronchiectasis
3. Bronchiolitis
4. Pulmonary sarcoidosis

Select the correct answer using the code given below :
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2021

232. Risk factors for development of COPD include which of the following ?
1. Tobacco smoking
2. Recurrent infection
3. Coal dust exposure
4. High socio-economic status

Select the correct answer using the code given below :
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2021

233. Which one of the following is not an aim of asthma therapy ?
(a) Peak expiratory flow circadian variation < 20%
(b) No emergency visits
(c) Minimal use of inhaled corticosteroid
(d) Minimal use of beta-2-agonists

2021

234. A 65-year-old male smoker has been diagnosed with Chronic Obstructive Pulmonary Disease (COPD). On pulmonary function testing, the $FEV_1/FVC < 0.7$ and $FEV_1 = 42\%$ of predicted. The severity of airflow obstruction in this patient as per GOLD criteria is :
(a) Mild
(b) Moderate
(c) Severe
(d) Very severe

2021

235. A 40-year-old patient of bronchial asthma presents with acute severe breathlessness. Indications for giving him assisted ventilation for acute severe asthma include which of the following ?
(a) $PaO_2 < 80$ mm of Hg, $PaCO_2 < 45$ mm of Hg
(b) PaO_2 60 mm of Hg, $PaCO_2$ 45 mm of Hg
(c) $PaO_2 < 60$ mm of Hg, $PaCO_2$ 45 mm of Hg
(d) $PaO_2 < 80$ mm of Hg, $PaCO_2$ 45 mm of Hg

2021

236. Which of the following are the non-metastatic extra-pulmonary manifestations of lung cancer ?
1. Carcinoid syndrome
2. Nephrotic syndrome
3. Horner's syndrome
4. Lambert-Eaton syndrome

Select the correct answer using the code given below :
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2021

237. A 60-year-old obese person (weighing 110 kg) has been complaining of excessive sleepiness in day time, morning headache, irritability and mood disturbances. Patient also has history of dry mouth, nocturnal heartburn, diaphoresis of the chest and neck. Which one of the following will be the best investigation to diagnose the patient ?
(a) Ambulatory Blood Pressure Monitoring (ABPM)
(b) 24-hour Holter Monitoring
(c) Echocardiography
(d) Overnight Polysomnogram

2021

238. Which of the following drugs trigger bronchial asthma ?

Click Here to Buy book on Amazon

1. Sulfonamides
2. Aspirin
3. ACE inhibitors
4. Beta blockers

Select the correct answer using the code given below :

(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2021

239. A patient with Crohn's disease underwent ileal resection. Which of the following complications may develop in this patient ?

1. Oxalate rich renal calculi
2. Diarrhoea
3. Fat malabsorption
4. Hypernatremia

Select the correct answer using the code given below :

(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2021

240. Protein losing enteropathy due to obstruction of intestinal lymphatic vessels is seen in which of the following conditions ?

1. Intestinal lymphangiectasia
2. Constrictive pericarditis
3. Eosinophilic gastroenteritis
4. Whipple's disease

Select the correct answer using the code given below :

(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2021

241. Consider the following statements with regard to 'Anorexia of Aging':

1. Declining chemosensory function (smell and taste)
2. Reduced efficiency of chewing
3. Slowed gastric emptying
4. Alterations in the neuro-endocrine axis

Which of the above statements are associated with early satiety and weight loss in elderly?

(a) 3 and 4 only
(b) 1, 2 and 4 only
(c) 1, 2 and 3 only
(d) 1, 2 and 3 only

2021

242. Consider the following statements:

1. Type-1 HRS (Hepato-Renal Syndrome) is characterized by a rapid deterioration in renal function, within 1 – 2 weeks of presentation.
2. Type-2 HRS is characterized by a moderate and stable or slowly progressive renal dysfunction.
3. HRS is seen in patients with large ascites in case of cirrhosis.

Which of the above statements is/are correct?

(a) 1 only
(b) 3 only
(c) 1 and 2 only
(d) 1, 2 and 3

2021

243. Consider the following statements in respect of Helicoptered Pylori:

1. It is a gram positive, spiral-shaped bacterium.
2. It uses an adhesion molecule (BabA) to bind to the 'Lewis b' antigen on gastric epithelial cells.
3. It produces 'urease' enzyme that helps to raise the pH around the bacterium.
4. It exclusively colonises only 'gastric-type' epithelium.

Which of the above statements are correct?

(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 2, 3 and 4
(d) 1, 3 and 4

2021

244. The quadruple therapy regime (or OBMT regime) for Helicobacter Pylori eradication comprises which of the following drugs?

(a) Omeprazole, Bismuth subcitrate, Metronidazole, Tetracycline
(b) Ofloxacin, Bismuth subcitrate, Metronidazole, Tetracycline
(c) Omeprazole, Beclomethasone, Metronidazole, Tacrolimus
(d) Omeprazole, Beclomethasone, Mometasone, Tetracycline

2021

NODIA

245. Cystic fibrosis disorder is:
(a) Autosomal dominant
(b) Autosomal recessive
(c) X-linked dominant
(d) X-linked recessive

2021

246. Which of the following diseases may be associated with Coeliac disease?
1. Type-2 Diabetes mellitus
2. IgA deficiency
3. Down syndrome
4. Turner's syndrome

Select the correct answer using the code given below :
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2021

247. Consider the following statements regarding Coeliac disease :
1. There is a strong association of the disease with Human Leukocyte Antigen, HLA-DQ2/DQ8.
2. There is intolerance to gluten found in wheat, rye, barley and oats.
3. In the elderly, the disease presents with symptoms ranging from florid malabsorption, weight loss and anemia to oral ulceration, dyspepsia and bloating.
4. In suspected patients, small bowel biopsy is contraindicated.

Which of the above statements are correct ?
(a) 1, 2 and 3
(b) 2 and 3 only
(c) 1 and 2 only
(d) 1, 3 and 4

2021

248. Asymptomatic bacteriuria is defined as the presence of more than :
(a) 10^5 organisms/mL in the urine of apparently healthy asymptomatic patients.
(b) 10^4 organisms/mL in the urine of apparently healthy asymptomatic patients.
(c) 10^3 organisms/mL in the urine of apparently healthy asymptomatic patients.
(d) 10^2 organisms/mL in the urine of apparently healthy asymptomatic patients.

2021

NODIA

249. Renal transplant offers the best chance of long-term survival in ESRD and is cost-effective. Which one of the following is not a contraindication to renal transplantation?
(a) Active malignancy
(b) Children less than one year
(c) Adults more than 75 years
(d) Diabetes mellitus

2021

250. Which of the following are the mechanisms for anemia in Chronic Kidney Disease ?
1. Deficiency of erythropoietin
2. Folate and Vitamin B12 deficiency
3. Toxic effects of uraemia on bone marrow
4. Reduced utilization of dietary iron

Select the correct answer using the code given below :
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2021

251. The leading cause of Chronic Kidney Disease (CKD) globally is :
(a) Diabetic nephropathy
(b) Glomerulonephritis
(c) Hypertension-associated CKD
(d) Polycystic kidney disease

2021

252. The presence of Beevor's sign on neurological examination is characteristic of spinal cord lesion at which one of the following levels ?
(a) T3 – T4
(b) T7 – T8
(c) T9 – T10
(d) None of the above

2021

253. Which one of the following statements is correct regarding lower motor neuron type of lesion ?
(a) Fasciculation is absent.
(b) Deep tendon reflexes are increased.
(c) Clonus is present.
(d) Plantar reflex shows flexor response.

2021

254. Which one of the following is the single strongest risk factor for dementia ?
(a) Increasing age
(b) Alcoholism

(c) Positive family history
(d) Systemic illness

2021

255. Visual hallucination is characteristic of which type of dementia ?
(a) Diffuse Lewy body dementia
(b) Frontotemporal dementia
(c) Alzheimer's dementia
(d) Vascular dementia

2021

256. A 37-year-old mother of two children has bilateral headache that worsens with emotional stress; pain is less severe in the early part of the day but becomes more severe in the evening; there is tenderness over skull vault. Both children are not doing well in school. What is the most likely diagnosis?
(a) Cluster headache
(b) Tension type headache
(c) Trigeminal neuralgia
(d) Migraine

2021

257. Which of the following are the causes of polyneuropathy?
1. HIV
2. Alcohol
3. Phenytoin
4. Rifampicin

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2021

258. Consider the following statements regarding Intracerebral Hemorrhage (ICH):
1. It accounts for 35% of all strokes.
2. Most common site of hypertensive ICH is cerebral cortex.
3. Use of cocaine and methamphetamine is a frequent cause of stroke in young age.
4. Hypertensive ICH usually results from spontaneous rupture of small penetrating artery deep in brain.

Which of the above statements are correct?
(a) 1 and 2
(b) 2 and 3
(c) 3 and 4
(d) 1 and 4

2021

259. A 21-year-old young lady presents with unilateral facial weakness. She is unable to close her eye on the affected side and there are vesicles in her ear. She is suffering from:
(a) 8th Cranial Nerve Palsy
(b) 3rd Cranial Nerve Palsy
(c) 5th Cranial Nerve Palsy
(d) 7th Cranial Nerve Palsy

2021

260. Lesion of dominant parietal lobe causes which of the following?
1. Dysphasia
2. Acalculia
3. Dyslexia
4. Contralateral neglect

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2021

261. Which of the following are the clinical features of Neurofibromatosis?
1. Angiomas
2. Axillary freckles
3. Cutaneous schwannomas
4. Neurofibromas

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2021

262. Which of the following are clinical features of Parkinson's disease?
1. Bradykinesia
2. Rigidity
3. Spastic gait
4. Mask-like face

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

Downloaded from www.pdf.tube

2021

263. Which one of the following statements is correct for an individual with blood group AB?
(a) A antigen on RBC; Anti-B antibody in plasma.
(b) A and B antigens on RBC; no antibody in plasma.
(c) B antigen on RBC; Anti-A antibody in plasma.
(d) No antigen on RBC; Anti-A and Anti-B antibodies in plasma.

2021

264. Which one of the following is unlikely to be associated with eosinophilia?
(a) Loeffler's syndrome
(b) Toxocariasis
(c) Trichinella spiralis
(d) Tuberculosis

2021

265. Which one of the following is a tumour marker for carcinoma of pancreas?
(a) Alpha-fetoprotein
(b) CA-125
(c) Calcitonin
(d) CA-19-9

2021

266. Which of the following statements regarding G6PD enzyme deficiency are correct?
1. It is an X-linked deficiency.
2. Geographical distribution parallels the malaria belt.
3. Consumption of fava beans is protective.
4. Transfusion support may be life saving.

Select the correct answer using the code given below:
(a) 1 and 3 only
(b) 1, 2 and 4
(c) 1 and 4 only
(d) 2, 3 and 4

2021

267. Which of the following investigations indicate active hemolysis?
1. Increased reticulocyte count
2. Increased conjugated bilirubin
3. Increased urinary urobilinogen
4. Decreased haptoglobin

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1 and 4 only
(c) 1, 3 and 4
(d) 2, 3 and 4

2021

268. Which type of anemia can be caused by the drug Dapsone?
(a) Iron deficiency anemia
(b) Sideroblastic anemia
(c) Spur cell anemia
(d) Hemolytic anemia

2021

269. Which of the following are decreased during pregnancy?
1. Iron stores
2. Vitamin B12 levels
3. Folate levels
4. Coagulation factors

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1 and 2 only
(c) 1, 3 and 4
(d) 2, 3 and 4

2021

270. Which one of the following drugs causes direct X-a inhibition?
(a) Tirofiban
(b) Apixaban
(c) Dabigatran
(d) Prasugrel

2021

271. A 20-year-old young girl presents with heavy menstrual bleeding, petechiae on her arms and blood blisters in mouth. Her complete blood count shows haemoglobin 7 gm/dL, total leucocyte count 8,700 cells/μL and platelet count of 6,000/μL with peripheral smear showing large platelets. Which is likely the best initial drug treatment for this patient?
(a) High dose glucocorticoids
(b) High dose glucocorticoids with IVIgG
(c) High dose glucocorticoids with Rituximab
(d) IVIgG with anti-Rho(D) therapy

2021

272. A 30-year-old female presents with malaise, breathlessness off and on and paresthesias. She is vegetarian by diet. Her investigation revealed

NODIA

Hb = 6.2 gm/dL, MCV = 128 fL, platelet count = 1,20,000/cumm, with blood smear showing macrocytosis and neutrophil hyper segmentation. What is the likely diagnosis?
(a) Iron deficiency anemia
(b) Myelophthisic anemia
(c) Megaloblastic anemia
(d) Aplastic anemia

2021

273. Which of the following is the most common dermatologic manifestation of Diabetes mellitus?
(a) Xerosis
(b) Acanthosis nigricans
(c) Lichen planus
(d) Necrobiosis lipoidica

2021

274. Which one of the following conditions may result in hypo glycaemia?
(a) Critical illness
(b) Cortisol therapy
(c) Cushing's disease
(d) Metabolic syndrome

2021

275. Use of which of the following drugs may result in osteoporosis?
1. Phenytoin
2. Lithium
3. Methotrexate
4. Azathioprine

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2021

276. Which one of the following oral anti-diabetic drugs acts on renal proximal tubules?
(a) Alpha glucosidase inhibitors
(b) GLP-1 analogue
(c) DPP-4 inhibitors
(d) SGLT-2 inhibitors

2021

277. Which of the following are short acting insulin?
1. Aspart
2. Lispro
3. Glargine
4. Regular

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2021

278. Hirsutism is seen in which of the following?
1. Polycystic ovarian syndrome
2. Congenital adrenal hyperplasia
3. Hypothyroidism
4. Ovarian tumour

Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2 and 4 only

2021

279. Which of the following are correct regarding hypothyroidism?
1. It is more common in females.
2. Autoimmunity is a rare aetiopathogenesis.
3. In pregnancy, increased dose of levothyroxine is required.
4. Suppressed TSH is a risk factor for osteoporosis.

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1 and 4 only
(c) 1, 3 and 4
(d) 2, 3 and 4

2021

280. Which of the following are correct regarding Diabetes insipidus?
1. Polyuria and polydipsia are common symptoms.
2. Urine is of low osmolality and specific gravity.
3. Lithium is useful in treatment.
4. It is potentially lethal, if hypothalamic thirst centre is damaged.

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1 and 4 only

Click Here to Buy book on Amazon

(d) 2, 3 and 4

2021

281. A 42-year-old lady presents with symptoms of tiredness, constipation, impaired hearing and weight gain in spite of poor appetite. Which of the following are relevant investigations in this case?
1. TSH level
2. Free T_4 levels (unbound T_4)
3. Anti-TPO antibodies
4. Radionuclide scan of the thyroid

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 only

2021

282. A patient presents with circulatory shock, nausea, vomiting and diarrhoea. A diagnosis of acute adrenal crisis is considered. A blood sample is stored for measurement of serum cortisol and treatment started without delay. Which of the following are appropriate interventions?
1. IV normal saline
2. IV hydrocortisone 100 mg stat
3. IV 10% glucose
4. IV KCl as infusion

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1 and 2 only
(c) 1, 3 and 4
(d) 2, 3 and 4

2021

283. The most common acid-base disturbance in critically ill patients is:
(a) Chronic respiratory acidosis
(b) Chronic respiratory alkalosis
(c) Chronic metabolic acidosis
(d) Chronic metabolic alkalosis

2021

284. Which of the following are the potentially reversible causes of weight gain?
1. Insulinoma
2. Cushing's syndrome
3. Sulfonylureas
4. Beta-blockers

Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 3 and 4 only
(c) 2 and 3 only
(d) 1, 2, 3 and 4

2021

285. Which of the following are the metabolic complications of parenteral nutrition?
1. Hyperglycemia
2. Liver cirrhosis
3. Fluid overload
4. Hyper phosphatemia

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 3 and 4 only
(d) 1 and 3 only

2021

286. Anti-Ribonucleoprotein antibody (Anti-RNP) is characteristically seen in which one of the following conditions?
(a) Sjogren's syndrome
(b) Diffuse systemic sclerosis
(c) Sarcoidosis
(d) Mixed connective tissue disorder

2021

287. Polyarteritis nodosa has peak incidence between the ages of:
(a) 10 – 20 years
(b) 20 – 30 years
(c) 30 – 40 years
(d) 40 – 50 years

2021

NODIA

288. First line drug treatment to reduce fractures in osteoporosis is:
(a) Bisphosphonates
(b) Denosumab
(c) Teriparatide
(d) Raloxifene

2021

289. Which of the following are tricyclic antidepressants?
1. Amitriptyline
2. Dosulepin
3. Paroxetine
4. Imipramine

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2021

290. Recurrent bouts of binge eating are usually associated with:
(a) Bulimia nervosa
(b) Anorexia nervosa
(c) Post-partum depression
(d) Personality disorder

2021

291. During physical assessment of a 55-year-old male with low back pain, the quadriceps (knee) reflex was absent. Which of the following nerve roots is most likely to be affected?
(a) L_2
(b) L_5
(c) L_4
(d) S_1

2021

292. Which of the following conditions are parts of inherited cancer syndrome?
1. Retinoblastoma
2. Li-Fraumeni syndrome
3. Xeroderma pigmentosum
4. Peutz-Jeghers syndrome

Select the correct answer using the code given below:
(a) 1, 2, 3 and 4
(b) 1, 2 and 3 only
(c) 1 and 3 only
(d) 2 and 4 only

2021

293. Which of the following are the diseases associated with DNA repeat sequences?
1. Huntington's disease
2. Myotonic dystrophy
3. Friedreich's ataxia
4. Klinefelter syndrome

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2021

294. Which one of the following is not a constituent of treatment of severe hyperkalemia?
(a) IV calcium gluconate (10 mL of 10%)
(b) Beta-2 adrenoceptor antagonist
(c) Dialysis
(d) IV sodium bicarbonate

2021

295. Which one of the following is not a usual cause of Type-2 respiratory failure?
(a) Guillain-Barré syndrome
(b) Upper airway obstruction
(c) Pulmonary embolism
(d) Flail chest

2021

296. Which of the following manifestations is/are seen in hypocalcemia?
(a) Nausea and vomiting
(b) Dilated cardiomyopathy
(c) Polyuria
(d) Polydipsia

2021

297. A chronic alcoholic develops a paroxysm of palpitations after alcohol binge. Which of the following Arrhythmia is most likely?
(a) Ventricular fibrillation
(b) Ventricular premature complex
(c) Atrial flutter
(d) Atrial fibrillation

2020

298. An elderly-man with history of Diabetes mellitus and Coronary Artery Disease comes for follow-up, with complaints of muscle pains. Which one of the following drugs could be the most likely cause?
(a) Aspirin
(b) Glimepiride
(c) Enalapril
(d) Atorvastatin

2020

299. A 40-year old lady comes to outdoor clinic with complaints of sudden onset chest pain. The chest X-ray shows bilateral Pneumothorax. Examination reveals abnormalities of body habitus-including long arms, legs and finger (arachnodactyly), scoliosis, high arched palate, joint hyper mobility, and a pan systolic murmur at cardiac apex. Which one of the following diseases is most likely?

Downloaded from www.pdf.tube

(a) Takayasu's arteritis
(b) Raynaud's syndrome
(c) Marfan's syndrome
(d) Rheumatic heart disease-Mitral regurgitation

2020

300. All of the following are indications for treadmill testing/exercise-testing EXCEPT:
(a) To confirm the diagnosis of angina
(b) To evaluate stable angina
(c) To assess outcome after coronary re vascularization
(d) To evaluate the treatment efficacy of anti anginal drugs

2020

301. Kussmaul's sign is present in all of the following conditions, EXCEPT:
(a) Massive Pulmonary Embolism
(b) Restrictive Cardiomyopathy
(c) Hypertrophic Cardiomyopathy
(d) Right Ventricular Infarction

2020

302. Which one of the following is NOT a common cause of atrial fibrillation?
(a) Mitral regurgitation
(b) Hypothyroidism
(c) Hypertension
(d) Acute myocardial infarction

2020

303. In an ECG recording, P wave is produced by:
(a) Atrial depolarisation
(b) Atrial repolarisation
(c) Ventricular depolarisation
(d) Ventricular repolarisation

2020

304. Which one of the following modalities is NOT used in the treatment of ventricular tachycardia?
(a) DC Cardioversion
(b) Injection Lignocaine
(c) Injection Amiodarone
(d) Injection Adenosine

2020

305. Which one of the following drugs is a Direct Renin Inhibitor?
(a) Benedipine
(b) Azilsartan
(c) Aliskiren
(d) Lisinopril

2020

NODIA

306. All of the following are causes of systolic hypertension with wide pulse pressure EXCEPT:
(a) Aortic regurgitation
(b) Thyrotoxicosis
(c) Patent ductus arteriosus
(d) Aortic stenosis

2020

307. Signet-ring sign on CT-chest is suggestive of:
(a) Bronchiectasis
(b) Active alveolitis
(c) Aspergilloma
(d) Sarcoidosis

2020

308. Oral corticosteroids are best introduced in the treatment of chronic bronchial asthma when it is:
(a) Mild persistent
(b) Moderate persistent
(c) Severe persistent
(d) Very severe persistent

2020

309. An 18-year old male has insulin dependent diabetes, with malabsorption syndrome and bilateral upper lobe bronchiectasis. A diagnostic work-up will include all EXCEPT:
(a) 24 hour fecal fat-estimation
(b) CT-chest
(c) Lung biopsy
(d) DNA sequencing study

2020

310. Which one of the following antigens is commonly associated with causation of Farmer's lung?
(a) Penicillium
(b) Actinomycetes
(c) Aspergillus
(d) Candida

2020

311. The most common cause of chronic type II respiratory failure is:
(a) Severe pneumonia
(b) Severe COPD
(c) Severe bronchial asthma
(d) Severe pulmonary thromboembolism

2020

312. The most frequent symptom in respiratory diseases is:

(a) Breathlessness
(b) Chest pain
(c) Hemoptysis
(d) Cough

2020

313. A 26-year old young lady attends medical emergency and is labelled as acute severe asthma by the emergency physician. Which one of the following is unlikely to be a part of the prescription?
(a) Albuterol
(b) Anti-leukotrienes
(c) Aminophylline
(d) Magnesium sulfate

2020

314. Consider the following statements with regard to respiratory examination:
1. Change in note, when patient phonates EEE (Egophony) is characteristic of interstitial fibrosis
2. Whispered pectoriloquy is characteristic of lung consolidation
3. Monophonic wheeze is characteristic of asthma
4. Hyper-resonant note on percussion is characteristic of pneumothorax

Which of the above statements are correct?
(a) 1 and 3
(b) 2 and 4
(c) 1, 2 and 4
(d) 2, 3 and 4

2020

315. All of the following are causes of exudative Pleural Effusion, EXCEPT:
(a) SVC obstruction
(b) Fungal infection
(c) SLE
(d) Meig syndrome

2020

316. Which one of the following is NOT true about Ghrelin?
(a) It stimulates appetite
(b) It decreases gastric emptying
(c) It increases acid secretion
(d) Fasting increases its secretion

2020

317. Fecal elastase test is used for diagnosing which one of the following conditions?
(a) Lactose intolerance
(b) Mucosal inflammation
(c) Bile acid secretory defects
(d) Pancreatic dysfunction

2020

318. The recent classification system for listing a patient as a candidate for liver transplantation is:
(a) Child Pugh score
(b) APACHE score
(c) MELD score
(d) Metavir score

2020

319. The blood supply of liver consists of:
(a) 50 % hepatic artery and 50 % portal vein
(b) 80 % portal vein and 20 % hepatic artery
(c) 80 % hepatic artery and 20 % portal vein
(d) 70 % hepatic artery and 30 % portal vein

2020

320. All of the following conditions are associated with Glomerulonephritis with low complement level, EXCEPT:
(a) Subacute bacterial endocarditis
(b) IgA nephropathy
(c) Systemic lupus erythematosus
(d) Cryoglobulinemia

2020

321. Consider the following statements with regard to oral aphthous ulcers:
1. They are superficial and painful
2. They may occur in women just prior to menstruation
3. Oral glucocorticoids may be needed for the treatment of severe, recurrent cases
4. They are pre-malignant and progress over few years to squamous cell carcinoma of the oral cavity

Which of the above statements are correct?
(a) 1 and 4 only
(b) 2 and 3 only
(c) 1, 2 and 3 only
(d) 1, 2, 3 and 4

2020

322. Which one of the following statements about Barrett's Oesophagus is NOT correct?
(a) It is a pre-malignant condition
(b) Normal squamous cells lining the lower oesophagus are replaced by columnar cells

Click Here to Buy book on Amazon

(c) Normal columnar cells lining the lower oesophagus are replaced by squamous cells
(d) It is an adaptive response to chronic gastroesophageal reflux

2020

323. Spontaneous oesophageal perforation after a bout of forceful vomiting or retching is characteristically seen in which one of the following conditions?
(a) Menetrier's disease
(b) Boerhaave's syndrome
(c) Achalasia of the oesophagus
(d) Barrett's oesophagus

2020

324. Eradication of helicobacter pylori infection may prove beneficial in the following extra-gastric disorders EXCEPT:
(a) Unexplained vitamin B12 deficiency
(b) Idiopathic thrombocytopenic purpura
(c) Iron deficiency anaemia without gastro-intestinal bleeding
(d) Acute glomerulonephritis

2020

325. What is the target blood Hemoglobin level when treating anaemia in Stage-4 chronic kidney disease patient?
(a) 8 to 10 gm/dL
(b) 10 to 12 gm/dL
(c) 12 to 13 gm/dL
(d) 13 to 14 gm/dL

2020

326. Which one of the following complications of chronic kidney disease is observed in patients with low parathyroid hormone levels?
(a) Adynamic bone disease
(b) Tumoral calcinosis
(c) Osteitis fibrosa cystic
(d) Calciphylaxis

2020

327. All of the following statements about adult polycystic kidney disease are true, EXCEPT:
(a) It is inherited as autosomal dominant trait
(b) It is usually associated with marked proteinuria
(c) It is usually associated with systematic hypertension, from young age
(d) It is associated with Berry aneurysm

2020

328. Consider the following statements in relation to an adult patient:
1. Oliguria is defined as passage of urine less than 300 ml per day
2. Anuria is said to exist when less than 50 ml urine is passed per day
3. Polyuria is defined as urine volume in excess of 3 litre per day

Which of the statements given above are correct?
(a) 1 and 3 only
(b) 2 and 3 only
(c) 1 and 2 only
(d) 1, 2 and 3

2020

329. White cell casts in urine examination are strongly suggestive of:
(a) Nephritis
(b) Pyelonephritis
(c) Renal stone disease
(d) Papillitis

2020

330. A 13-year old boy presents with hematuria, oliguria, edema and hypertension. He has history of sore throat two weeks prior to presentation. Laboratory investigations are remarkable for low C3 and increased titres of ASO and antiDNase. Which one of the following statements is NOT correct about management for this condition?
(a) Renal biopsy is rarely required for making diagnosis
(b) Antibiotic treatment is given for streptococcal infection
(c) Treatment is largely supportive
(d) Immunosuppressants are to be used for crescentic glomerulonephritis

2020

331. Which one of the following statements is NOT correct regarding the risk factors for nephrolithiasis?
(a) Higher dietary calcium increases risk
(b) Higher animal protein intake increases risk
(c) Higher dietary potassium intake lowers risk
(d) Lower urine citrate increases the risk

2020

332. A 60-year old patient is admitted in emergency with seizure, aphasia and altered sensorium. He has history of fever and headache for the preceding 3 days. The CSF examination is

Downloaded from www.pdf.tube

unremarkable. What would be the probable diagnosis?
(a) Multiple sclerosis
(b) Tubercular meningitis
(c) Pyogenic (bacterial) meningitis
(d) Viral encephalitis

2020

333. Drug of choice for the treatment of Trigeminal Neuralgia is:
(a) Carbamazepine
(b) Aceclofenac
(c) Thiamine
(d) Prednisolone

2020

334. Constructional skills is a function of which lobe?
(a) Dominant temporal lobe
(b) Non dominant parietal lobe
(c) Frontal lobe
(d) Non dominant temporal lobe

2020

335. Vertical gaze palsy with convergence retraction nystagmus is seen in:
(a) Weber syndrome
(b) Millard Gubler syndrome
(c) Claude syndrome
(d) Parinaud syndrome

2020

336. A patient on looking forward was found to have his right eye deviated downwards and outwards with pupil dilated. He is suffering from:
(a) Left 3rd nerve palsy
(b) Left 6th nerve palsy
(c) Right 4th nerve palsy
(d) Right 3rd nerve palsy

2020

337. All of the following are features of Cauda Equina syndrome EXCEPT:
(a) Low back pain
(b) Lower limb areflexia
(c) Loss of bladder function
(d) Extensor plantar response

2020

338. A 68-year old male presented in OPD with complaints of progressive small handwriting. On examination, he had resting tremor, bradykinesia, rigidity and postural instability. This patient is suffering most likely from:
(a) Parkinson's disease
(b) Vascular dementia
(c) Alzheimer's disease
(d) Frunto temporal dementia

2020

NODIA

339. An elderly patient presents with abnormal gait. He has a wide base freezing gait with imbalance, comprising short strides, shuffling along the floor and difficulty with starts and turns. Heel-Shin test is normal. Which one of the following is most likely disorder?
(a) Cerebellar ataxia
(b) Sensory ataxia
(c) Frontal gait disorder
(d) Parkinson's disease

2020

340. Cushing reflex, seen in conditions of raised intra cranial pressure includes all of the following EXCEPT:
(a) Bradycardia
(b) Hypertension
(c) Irregular respiration
(d) Hypothermia

2020

341. A 35 year old man presents with history of low grade fever and headache for last five weeks. Clinical examination is remarkable for signs of meningismus. He undergoes lumbar puncture (LP) and a day later reports worsening of headache. Which one of the following features is NOT consistent with diagnosis of 'Post-LP' headache?
(a) Post-LP headache usually begins within 48 hours
(b) Post-LP headache worsens in sitting position
(c) Post-LP headache is most severe upon waking up
(d) Post-LP headache may improve with caffeine intake

2020

342. Which one of the following investigations is NOT appropriate in a case of recurrent thrombosis?
(a) Antiphospholipid antibodies
(b) Bcr-Abl assay
(c) Protein C and S assays
(d) Antithrombin level

2020

343. All of the following are causes of reactive thrombocytosis, EXCEPT:

(a) Hemolytic anemia
(b) Megaloblastic anemia
(c) Post splenectomy
(d) Chronic inflammatory disorders

2020

344. Cryoprecipitate cannot be used for treatment of which one of the following conditions?
(a) Von Willebrand disease
(b) Hypofibrinogenemia
(c) Hemophilia–B
(d) Hemphilia–A

2020

345. Pyruvate kinase deficiency results in deficiency of ATP production and a chronic haemolytic anaemia. The disorder is inherited as an:
(a) Autosomal recessive trait
(b) X-linked recessive trait
(c) Autosomal dominant trait
(d) X-linked dominant trait

2020

346. Sickle cell disease may be associated with any of the following EXCEPT:
(a) Acute chest syndrome
(b) Aplastic crisis
(c) Splenic sequestration crisis
(d) Conn's syndrome

2020

347. Fever with splenomegaly and lymphadenopathy can be seen in
(a) Infectious mononucleosis
(b) Chronic leukaemia
(c) Both infectious mononucleosis and chronic leukaemia
(d) Neither infectious mononucleosis nor chronic leukaemia

2020

348. Every individual carries four alpha gene alleles. Deletion of three alleles leads to development of:
(a) Haemoglobin X disease
(b) Haemoglobin H disease
(c) Haemoglobin F disease
(d) Hydrops fetalis

2020

349. Which one of the following is NOT true regarding Chronic Myeloid Leukaemia (CML)?
(a) It is a clonal malignancy of hematopoietic stem
(b) Risk of developing CML is increased in monozygotic turns
(c) CML is defined by presence of BCR-ABL 1 fusion gene
(d) 10 year survival with TKI therapy is 85%

2020

350. Diagnostic criteria of multiple myeloma includes which of the following?
1. Increased malignant plasma cells in the bone marrow
2. Serum and/or urinary M protein
3. Skeletal lytic lesions
4. Skeletal blastic lesions

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 3 and 4
(c) 1, 2 and 4
(d) 2, 3 and 4

2020

351. The most predominant type of serum immunoglobulin involved in patients with plasma cell disorder is:
(a) Ig G
(b) Ig A
(c) Ig D
(d) Light chains

2020

352. Which one of the following is NOT the criterion for the diagnosis of Diabetes mellitus?
(a) Symptoms of diabetes and random plasma sugar concentration $\geq$ 200 mg/dL
(b) HbA1c $\geq$ 6.5 %
(c) 2-hours plasma glucose $\geq$ 200 mg/dL during an oral glucose tolerance test
(d) Fasting plasma glucose $\geq$ 110 mg/dL

2020

353. A young lady presents in outdoor clinic with complaints of menstrual irregularity, weight gain, hair loss, tiredness and weakness. What will be the investigation of choice?
(a) FSH & LH level
(b) Estrogen level
(c) Free T3 and free T4 level
(d) Free T4 and TSH level

2020

354. Consider the following statements about erectile dysfunction in diabetic males:

Click Here to Buy book on Amazon

1. It affects 60 % of males
2. Its common cause is an underlying neuro-vascular pathology
3. It may be aggravated by beta-adrenergic agonist drugs
4. Endocrine disorders like hyperproteinemia may cause it

Which of the statements given above are true?
(a) 1 and 2
(b) 2 and 3
(c) 2 and 4
(d) 3 and 4

2020

355. All of the following can cause Hyperproteinemia, EXCEPT:
(a) Craniopharyngioma
(b) Hyperthyroidism
(c) Stress
(d) Chronic renal failure

2020

356. All of the following can be seen in a case of thyrotoxicosis, EXCEPT:
(a) Atrial fibrillation
(b) Periodic paralysis
(c) Deafness
(d) Osteoporosis

2020

357. Which one of the following hormones acts via the receptor tyrosine kinase?
(a) FSH
(b) TSH
(c) IGF-1
(d) PTH

2020

358. Consider the following disorders as constituent of Multiple Endocrine Neoplasia Type 2a (MEN 2a):
1. Primary Hyperparathyroidism
2. Pituitary tumours
3. Medullary carcinoma of thyroid
4. Pheochromocytoma

Which of the above are correct?:
(a) 1, 2 and 4
(b) 1, 2 and 3
(c) 1, 3 and 4
(d) 2, 3 and 4

2020

NODIA

359. Consider the following statements with regard to Graves' ophthalmopathy:
1. Proptosis is often asymmetric and can even appear to be unilateral
2. It is a clinical diagnosis
3. Worsening of symptoms upon glucocorticoid withdrawal is common
4. Radiation therapy is very effective in treatment

Which of the above statements are correct?
(a) 1 and 2 only
(b) 1, 2 and 3
(c) 2, 3 and 4
(d) 1 and 4 only

2020

360. All of the following are common aetiologies of delirium EXCEPT:
(a) Hyperthyroidism
(b) Hypothyroidism
(c) Hyperparathyroidism
(d) Hypoparathyroidism

2020

361. Key anthropometric measurements important for evaluating the degree of obesity are:
(a) Weight, height and waist circumference
(b) Weight, height and hip circumference
(c) Weight, height and mid-thigh circumference
(d) Weight, height and chest circumference

2020

362. What is the minimum BMI (Body Mass Index) recommended for considering adjuvant pharmacologic treatment in obesity with comorbidity?
(a) 23 kg/m^2
(b) 25 kg/m^2
(c) 27 kg/m^2
(d) 30 kg/m^2

2020

363. Fibroblast Growth Factor 23 (FGF 23) is increased in which one of the following conditions?
(a) Osteomalacia
(b) Osteoporosis
(c) Paget's disease
(d) Renal Osteodystrophy

2020

364. Which of the following crystals are deposited in a case of pseudo gout?

(a) Monosodium urate
(b) Calcium phosphate
(c) Cholestrol crystals
(d) Calcium pyrophosphate dehydrate (CPPD)

2020

365. Which of the following features are associated with poor prognosis in Diffuse Cutaneous Systemic Sclerosis (Scleroderma)?
1. Older age
2. A high gas transfer factor for carbon monoxide (TLCO)
3. Proteinuria
4. Diffuse skin disease

Select the correct answer using the code given below:
(a) 1, 2 and 4
(b) 3 and 4 only
(c) 1, 3 and 4
(d) 1, 2 and 3

2020

366. Which of the following statements regarding pegloticase are correct?
1. It is enzyme conjugate
2. It is useful in chronic Gout management
3. The main adverse effects are infusion reactions and development of antibodies

Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2020

367. The most common cause of sensorineural hearing loss in adults is:
(a) Otosclerosis
(b) Meniere's disease
(c) Presbycusis
(d) Meningitis

2020

368. A 50-year old male presents with dizziness. Which one of the following clinical findings does NOT favour a central cause?
(a) Poor saccades
(b) Gaze evoked nystagmus
(c) Inhibition by visual fixation
(d) Presence of diplopia, dysarthria

2020

369. Austin Flint Murmur occurs in:
(a) Severe Mitral Stenosis
(b) Severe Mitral Regurgitation
(c) Severe Aortic Regurgitation
(d) Severe Aortic Stenosis

2019

370. Which amongst the following should be considered in a patient with acute chest pain and ST segment elevation in the precordial leads?
1. Acute myocardial infarction
2. Acute hyperkalemia
3. Pericarditis
4. Hypocalcemia
5. Oesophagi tis
6. Pneumothorax

Select the correct answer using the code given below.
(a) 1, 2 and 3
(b) 1, 3 and 4
(c) 1, 4 and 5
(d) 2, 3 and 6

2019

371. Which amongst the following is the most powerful independent risk factor for atherosclerosis?
(a) Age
(b) Hypertension
(c) Gender
(d) Physical Activity

2019

372. In which of the following SA node dysfunction conditions, permanent pacing may NOT be required?
1. Beta blocker drugs
2. Narcotic drugs
3. Iatrogenic–Post RT/Surgery
4. Hypothyroidism
5. Sick sinus syndrome
6. Raised Intracranial tension

Select the correct answer using the code given below.
(a) 1, 2, 3 and 4
(b) 1, 2, 4 and 5
(c) 1, 2, 4 and 6
(d) 3, 5 and 6

2019

373. Kartagener syndrome has the following features EXCEPT:
(a) Recurrent Sinusitis

Downloaded from www.pdf.tube

(b) Transposition of Viscera
(c) Autosomal Dominant
(d) Bronchiectasis

2019

374. Which of the following pulmonary function set is characteristic of COPD?
(a) FEV1 / FVC < 70% ; FEV1 ↓ ; FVC ↓ ; TLC ↑ DLCO Normal
(b) FEV1 / FVC < 70% ; FEV1 ↑ ; FVC ↓ ; TLC ↓ DLCO ↓
(c) FEV1 / FVC < 70% ; FEV1 ↓ ; FVC ↑ ; TLC ↑ DLCO ↑
(d) FEV1 / FVC < 70% ; FEV1 ↓ ; FVC ↓ ; TLC ↓ DLCO ↓

2019

375. Which of the following drugs causes dry cough as a side effect?
(a) Fluconazole
(b) Ramipril
(c) Cefixime
(d) Atenolol

2019

376. The pleural fluid is considered as empyema if following is present in it:
(a) Fluid glucose < 60 mg/dl
(b) Lactate Dehydrogenase (LDH) of more than 1000 U/L
(c) Fluid pH of less than 7.0
(d) All of these

2019

377. Airway secretions contain all of the following antimicrobial peptides EXCEPT:
(a) Defensins
(b) Immunoglobulin A (IgA)
(c) Lysozyme
(d) Histidine

2019

378. The respiratory motor neuron associated with origin of respiratory cycle is located in:
(a) Pons
(b) Posterior Medulla oblongata
(c) Ventral Medulla oblongata
(d) Mid brain

2019

379. Which of the following Ascitic Fluid analysis is most compatible with a diagnosis of Ascites secondary to portal hypertension?
(a) SAAG < 1.1 g/dl ; Ascitic Fluid Protein < 2.5 g/dl
(b) SAAG < 1.1 g/dl ; Ascitic Fluid Protein 2.5 g/dl
(c) SAAG 1.1 g/dl ; Ascitic Fluid Protein < 2.5 g/dl
(d) SAAG 1.1 g/dl ; Ascitic Fluid Protein 2.5 g/dl

2019

380. All are the causes of Interstitial lung disease EXCEPT:
(a) Idiopathic Pulmonary Fibrosis
(b) Granulomatosis with Polyangiitis
(c) Sarcoidosis
(d) Bronchial Asthma

2019

381. The rhythmic activity recorded on scalp by EEG in a normal awake adult lying quietly with eyes closed is:
(a) Less than 4Hz – Delta rhythm
(b) 4 to 7 Hz – Theta rhythm
(c) 8 to 13 Hz – Alpha rhythm
(d) More than 14 Hz – Beta rhythm

2019

NODIA

382. Transient Monocular blindness may be due to small platelet emboli that occludes:
(a) Posterior Cerebellar artery
(b) Posterior Cerebral artery
(c) Ophthalmic artery
(d) Vertebral artery

2019

383. The phenomenon of sparing of macular vision is due to collateral circulation between:
(a) middle and posterior cerebral artery
(b) anterior and middle cerebral artery
(c) anterior and posterior cerebral artery
(d) anterior, middle and posterior cerebral artery

2019

384. Characteristic features of Horner's Syndrome are:
(a) partial ptosis, enophthalmos, constricted pupil, decreased sweating
(b) partial ptosis, exophthalmos, constricted pupil, decreased sweating
(c) partial ptosis, enophthalmos, dilated pupil, decreased sweating

(d) partial ptosis, enophthalmos, constricted pupil, increased sweating

2019

385. All of the following statements are true EXCEPT:
(a) Dorsal column fibres synapse at the cuneate and gracile nuclei
(b) Pain and temperature sensations are carried by lateral spinothalamic tract
(c) Spinal cord ends at lower level of 5th lumbar vertebrae
(d) Dorsal spinocerebellar tract carries fibres from the same side of the body

2019

386. The following conditions usually present with proximal muscle weakness, EXCEPT:
(a) Facio-scapulo-humeral dystrophy
(b) Myotonia dystrophica
(c) Duchene's muscular dystrophy
(d) Becker muscular dystrophy

2019

387. Pel-Ebstein fever is seen in:
(a) Hodgkin's disease
(b) Malaria
(c) Kalazar
(d) Typhoid fever

2019

388. All of the following are true regarding acute leukaemias, EXCEPT:
(a) Promyelocytic leukaemia may present with DIC
(b) Gum hypertrophy is a feature of monocytic leukaemia
(c) Translocation is a common chromosomal abnormality in acute myeloid leukaemia
(d) Auer rods suggest acute lymphocytic leukaemia

2019

389. All of the following are clinical features of Polycystic ovarian syndrome EXCEPT:
(a) Menorrhagia
(b) Hirsutism
(c) Glucose intolerance
(d) Infertility

2019

390. Clinical features of Turner syndrome include all EXCEPT:
(a) Webbing of Neck
(b) Narrow carrying angle of Elbow
(c) Coarctation of Aorta
(d) Short stature

2019

391. Pretibial myxedema is a clinical feature of:
(a) Hypothyroidism
(b) Graves disease
(c) Cushing disease
(d) Conn syndrome

2019

392. Match the List I with List II and select the correct answer using the code given below the lists:

	List I		**List II**
A.	Conn syndrome	1.	Anosmia
B.	Turner syndrome	2.	Tetany
C.	Kallman syndrome	3.	Lymphoedema
D.	Cushing syndrome	4.	Avascular necrosis of hip

Code:
(a) A-4 B-1 C-3 D-2
(b) A-2 B-3 C-1 D-4
(c) A-2 B-1 C-3 D-4
(d) A-4 B-3 C-1 D-2

2019

393. All of the following cause dementia EXCEPT:
(a) Huntington's disease
(b) Alzheimer's disease
(c) Vitamin D toxicity
(d) Thiamine deficiency

2019

394. The therapeutic level of Digoxin in blood is:
(a) 1–2 ng/ml
(b) 4–6 ng/ml
(c) 6–8 ng/ml
(d) 8–10 ng/ml

2019

395. A 40-year old woman presents with sudden onset palpitations. An ECG done reveals narrow-QRS complex tachycardia. The most likely diagnosis is:
(a) Ventricular tachycardia
(b) Pre-excited tachycardia
(c) Paroxysmal supraventricular tachycardia with aberrancy
(d) AV reentry tachycardia

2019

Click Here to Buy book on Amazon

396. Which of the following statements are true about management of acute pulmonary oedema?
1. Put the patient in relaxed, supine position
2. Give high flow, high concentration oxygen
3. Administer Furosemide intravenously
4. No role of Nitrates

Select the correct answer using the code given below:
(a) 1 and 2
(b) 2 and 3
(c) 3 and 4
(d) 1 and 4

2019

397. Which of the following does NOT cause prolongation of QT interval?
(a) Hypomagnesaemia
(b) Hyperkalaemia
(c) Erythromycin
(d) Amiodarone

2019

398. A 21-year young man presents in emergency with high grade fever with inflammation of knee and ankle joints which is fleeting in nature. There is history of occasional palpitations. There is no history of antecedent sore throat. On examination, splenomegaly is present. The ECG shows prolongation of PR interval. What is the most likely diagnosis in India?
(a) Still disease
(b) Enteric fever
(c) Rheumatic fever
(d) Reiter's syndrome

2019

399. A 50-year gentleman with Type-2 Diabetes mellitus for 5 years presents in medical emergency with sudden onset of dyspnoea at rest, orthopnoea, and prostration. On examination, pulse is rapid and very weak in volume. His blood pressure is 100/70 mmHg. There are diffuse crepitations at lung bases. What is the most likely diagnosis of his conditions?
(a) Mitral stenosis with bacterial endocarditis
(b) Right heart failure
(c) Left heart failure
(d) Constrictive pericarditis

2019

400. The 'Y' descent in JVP waveform represents:
(a) Atrial relaxation
(b) Atrial systole
(c) Atrial emptying
(d) Apical displacement of tricuspid valve

2019

401. While distinguishing a venous pulsation from the arterial pulsation in neck, which of the following is NOT correct?
(a) The height of venous pulse varies with respiration
(b) Abdominal pressure causes rise in venous pulse
(c) Venous pulse has a single peak in each cardiac cycle
(d) Venous pulse is not easily palpable

2019

402. Which of the following does NOT cause pulmonary infiltrates with eosinophilia?
(a) Bronchial asthma
(b) Postradiation pneumonitis
(c) Eosinophilic granulomatosis with polyangiitis
(d) Cystic fibrosis

2019

403. Total lung capacity is decreased in which one of the following conditions?
(a) Asthma
(b) Chronic bronchitis
(c) Pulmonary fibrosis
(d) Emphysema

2019

404. Which one of the following is the minimum spirometry criterion for diagnosis of bronchial asthma?
(a) Decrease in FEV1 $\geq$ 20 % after 6 minutes of exercise
(b) Increase in FEV1 $\geq$ 12 % following administration of inhaled bronchodilators
(c) Increase in 500 ml of FEV1 after glucocorticoids inhalation
(d) Less than 20 % diurnal variation on more than 3 days a week on PEF diary

2019

405. Modified Blatchford score is used for the risk stratification of:
(a) Pancreatitis
(b) Sepsis
(c) Upper gastrointestinal bleeding
(d) Cholangitis

2019

NODIA

406. Long term use of proton pump inhibitor in elderly puts the patient at risk of which of the following?
1. Community acquired pneumonia
2. Clostridium difficile associated disease
3. Urinary tract infection

Select the correct answer using the code given below:
(a) 1 only
(b) 2 only
(c) 1 and 2
(d) 2 and 3

2019

407. Regardless of the infectious agent, the most characteristic symptom of infectious esophagitis is:
(a) Dysphagia
(b) Chest pain
(c) Odynophagia
(d) Haematemesis

2019

408. The parameters used in modified Child-Pugh classification for staging cirrhosis are:
(a) Serum bilirubin, serum albumin only
(b) Serum albumin, serum bilirubin, prothrombin time only
(c) Serum albumin, serum bilirubin, prothrombin time, ascites only
(d) Serum albumin, Serum bilirubin, prothrombin time, ascites, hepatic encephalopathy

2019

409. All of the following are consistent with a diagnosis of Irritable Bowel Syndrome EXCEPT:
(a) Recurrent lower abdominal pain
(b) Altered bowel habits
(c) Symptoms during periods of stress
(d) Weight loss

2019

410. A 26-year old HIV infected male presents with odynophagia. Upper GI endoscopy demonstrates serpiginous ulcers in a normal surrounding mucosa in distal esophagus. The most likely diagnosis is:
(a) Gastro esophageal reflux disease
(b) Cytomegalovirus esophagitis
(c) Candida esophagitis
(d) Herpetic esophagitis

2019

NODIA

411. Cytomegalovirus esophagitis is particularly common in which group of patients?
(a) Diabetes mellitus
(b) Chronic liver disease
(c) Alcoholics
(d) Organ transplant recipients

2019

412. Which of the following is the most important complication in a patient with coeliac disease, who was previously doing well on a gluten-free diet and is now not responding to gluten restriction?
(a) Intestinal infection
(b) Intestinal lymphoma
(c) Resistant coeliac disease
(d) Type II Diabetes mellitus

2019

413. Which of the following are potential side effects of Anti-TNF therapies?
1. Infusion reactions
2. Melanoma
3. T-cell lymphoma

Select the correct answer using the code given below:
(a) 1 and 3 only
(b) 2 and 3 only
(c) 1 and 2 only
(d) 1, 2 and 3

2019

414. Presence of gastrinoma tumor should be suspected in which of the following conditions?
1. Ulcers in unusual location
2. Ulcers in the presence of H. pylori
3. Ulcers with frank complication like perforation

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1 and 2 only

2019

415. Coeliac disease is associated with which of the following medical conditions?
1. Dermatitis herpetiformis
2. Diabetes mellitus type II
3. Turner syndrome
4. IgA deficiency

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 2, 3 and 4
(c) 1, 3 and 4
(d) 1, 2 and 4

2019

416. Which of the following features are characteristics of Whipple disease?
1. Migratory small joint arthropathy
2. Diarrhoea with steatorrhea
3. Weight loss with Arthralgia
4. Ophthalmic and CNS symptoms

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 2, 3 and 4
(c) 1, 3 and 4
(d) 1, 2 and 4

2019

417. Which of the following are suggestive of protein losing enteropathy?
1. Steatorrhoea and diarrhoea
2. Peripheral oedema
3. Marked reduction of serum albumin with normal serum globulin

Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2019

418. Which of the following statements regarding Ankylosing spondylitis (AS) are true?
1. AS occurs in about 10 % of Inflammatory Bowel Disease (IBD) patients
2. The AS activity is related to Bowel activity in IBD patients
3. The AS activity does remit with glucocorticoids or colectomy in IBD patients

Select the correct answer using the code given below:
(a) 2 and 3
(b) 1 and 3
(c) 3 only
(d) 1 only

2019

419. Which of the following are the renal complications of radiological investigations?
1. Contrast nephrotoxicity
2. Cholesterol atheroembolism
3. Nephrogenic sclerosing fibrosis of skin

Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2019

420. A middle aged diabetic male who has recurrent chest pain undergoes coronary artery angiogram. The following day, he develops hematuria, proteinuria and renal impairment. What is the most likely diagnosis?
(a) Renal artery stenosis
(b) Acute renal infarction
(c) Atheroembolism
(d) Hemolytic Uraemic syndrome

2019

421. Which of the following are contra indications for renal biopsy?
1. Normal size kidney
2. Uncontrolled hypertension
3. Solitary kidney
4. Disordered coagulation

Select the correct answer using the code given below:
(a) 1, 2 and 4
(b) 1, 2 and 3
(c) 2, 3 and 4
(d) 1, 3 and 4

2019

422. The most specific test that establishes the diagnosis of Myasthenia gravis is:
(a) Anti-acetylcholine receptor antibody
(b) Repetitive nerve stimulation test
(c) Edrophonium test
(d) MRI brain

2019

423. The commonest cause for new-onset seizures in patients older than 65 years is:
(a) Trauma
(b) Cerebrovascular disease
(c) Tumors
(d) Degenerative disease

2019

Downloaded from www.pdf.tube

424. Ipsilateral 3rd cranial nerve palsy with contralateral cerebellar signs is seen in:
(a) Weber syndrome
(b) Wallenberg syndrome
(c) Parinaud syndrome
(d) Claude syndrome

2019

425. Incongruous contralateral homonymous hemianopia is due to lesion at:
(a) Optic nerve
(b) Optic chiasma
(c) Optic tract
(d) Optic radiation

2019

426. Macrocytosis is seen in all of the following conditions EXCEPT:
(a) Liver disease
(b) Post splenectomy
(c) Hypothyroidism
(d) Myelodysplastic syndrome

2019

427. All of the following cause microcytic hypochromic anemia EXCEPT:
(a) Thalassemia
(b) Anemia of chronic disease
(c) Sideroblastic anemia
(d) Hemolytic uraemic syndrome

2019

428. Treatment with the following drugs can lead to neutropenia EXCEPT:
(a) Glucocorticoids
(b) Propylthiouracil
(c) Dapsone
(d) Enalapril

2019

429. Which one of the following is a cause of early (0–4 weeks) infection in recipients of haematopoietic stem cell transplantation?
(a) Cytomegalovirus
(b) Pneumocystis jirovecii
(c) Varicella zoster
(d) Herpes simplex

2019

430. Which of the following is/are neurological manifestation(s) of vitamin B12 deficiency?
1. Poor memory
2. Optic atrophy
3. Personality change

Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 3 only
(c) 2 only
(d) 1, 2 and 3

2019

431. Which of the following infections does NOT cause cold antibodies immune hemolysis?
(a) Mycoplasma
(b) Malaria
(c) Syphilis
(d) Epstein–Barr virus

2019

432. Which of the following test has maximum sensitivity for diagnosing Pheochromocytoma?
(a) MIBG scintigraphy
(b) Somatostatin receptor scintigraphy
(c) Fluro-DOPA PET scan
(d) 24 hours urinary fractionated metanephrines and catecholamines

2019

433. Which of the following does NOT cause polyuria?
(a) Diabetes mellitus
(b) Diabetes insipidus
(c) Hypoparathyroidism
(d) Conn syndrome

2019

434. A 24 year female presented with generalized weakness. Her thyroid function test is as follows. Serum T3 = Normal, T4 = Normal, TSH = 10 mU/L. What is the most likely diagnosis?
(a) Primary hypothyroidism
(b) Secondary hypothyroidism
(c) Subclinical hypothyroidism
(d) Non thyroidal illness

2019

NODIA

435. A 26 year old lady has a Prolactinoma (microadenoma). The best modality of treatment for her condition is:
(a) Oral Cabergoline
(b) Oral Bromocriptine
(c) Surgery
(d) Radiotherapy

2019

436. The gold standard for diagnosis of Wilson's disease is:

(a) Demonstration of Kayser–Fleischer rings
(b) Urinary copper excretion
(c) Serum ceruloplasmin
(d) Liver biopsy with quantitative copper assays

2019

437. A 36-year old chronic alcoholic, malnourished male is hospitalized with pneumonia. His condition worsens after aggressive treatment with intravenous dextrose and antibiotics. The phenomenon of 'Re feeding Syndrome' is accompanied by which one of the following biochemical alterations?
(a) Hypophosphatemia
(b) Hyponatremia
(c) Hyperkalemia
(d) Hypermodernism

2019

438. Which of the following statements about 'Early onset Osteoarthritis' are true?
1. Onset is usually before the age of 55 years
2. There is clear history of previous trauma
3. In most cases, single joint is affected

Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2019

439. A 31-year young man presents with fever, weight loss, pain with swelling of knee joint and low backache with stiffness. Three weeks earlier, he was treated for urinary tract infection. The joint aspirate is leukocyte rich and contains multinucleated macrophages. His urine culture is sterile. What is the most probable diagnosis?
(a) Septic arthritis
(b) Crystal arthritis
(c) Reactive arthritis
(d) Still disease

2019

440. Consider the following statements regarding Gout in old age.
1. Most of older patients have gout secondary to diuretic use and chronic kidney disease
2. Joints of the upper limbs are more frequently affected
3. Presentation is typical with acute attack of gout

Which of the statements given above are correct?
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2019

441. A 28-year old woman complains of arthritis involving bilateral metacarpophalangeal, proximal interphalangeal and wrist joints of one year duration. The most likely disease entity is:
(a) Systemic lupus erythematosus
(b) Ankylosing spondylitis
(c) Rheumatoid arthritis
(d) Osteoarthritis

2019

442. Which of the following are the complications of Rheumatoid arthritis?
1. Peripheral entrapment neuropathies
2. Subluxation of the cervical spine at the atlanto-axial joint
3. Primary amyloidosis
4. Lymphoma

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 2, 3 and 4
(c) 1, 3 and 4
(d) 1, 2 and 4

2019

443. Which of the following is an Interleukin-17A (IL-17A) antibody?
(a) Ustekinumab
(b) Infliximab
(c) Secukinumab
(d) Etanercept

2019

444. The mainstay treatment of bipolar disorders is:
(a) Oxcarbazine
(b) Lithium
(c) Risperidone
(d) Olanzapine

2019

445. A 56-year old man presented with acute onset aphasia. Speech output was markedly reduced with preserved comprehension of spoken language. The area of brain involved is:
(a) Posterior part of temporal lobe
(b) Cerebellum

Click Here to Buy book on Amazon

STUDYING FROM PDFs?

THINK AGAIN.

If you are studying only from PDFs,
you are wasting valuable time.

Research shows that learning from

PRINTED BOOKS has up to

4× HIGHER RETENTION

than studying from screens.

PRINT BOOK = BETTER MEMORY

PDF = LOWER RETENTION

Those who study from **PRINTED BOOKS**
move **AHEAD.**

Others are left **BEHIND**
in competition.

In competitive exams,
being average is not enough.

STAY ONE STEP AHEAD.

(c) Midbrain
(d) Inferior frontal gyrus

2019

446. A 30-year old male was being evaluated for paraparesis. On examination, there was severe muscle atrophy, with absent deep tendon reflexes and absent Babinski sign. The most likely possibility is:
(a) Upper motor neuron disease
(b) Lower motor neuron disease
(c) Psychogenic cause
(d) Cerebellar disease

2019

447. The phenomenon wherein normally innocuous stimuli produce pain is called:
(a) Hyperalgesia
(b) Allodynia
(c) Analgesia
(d) Sensitization

2019

448. Nitroglycerin is NOT used as an oral tablet because of its:
(a) Poor solubility
(b) Poor degradibility
(c) High pre systemic metabolism
(d) Unpalatability

2019

449. Confabulation is a feature of the deficiency of:
(a) Niacin
(b) Folic acid
(c) Thiamine
(d) Zinc

2019

450. A 65-year old man, on Warfarin treatment, is started on antitubercular treatment. The pharmacologic effect of Warfarin is likely to:
(a) Increase
(b) Decrease
(c) Remain the same
(d) Be unpredictable and variable

2019

451. All of the following are components of the Wernicke's syndrome EXCEPT:
(a) Ataxia
(b) Ophthalmoplegia
(c) Retrograde amnesia
(d) Encephalopathy

2019

452. Which one of the following is a type of glycogen storage disease?
(a) Andersen disease
(b) Gaucher disease
(c) Krabbe disease
(d) Sandhoff disease

2019

453. Most common valve involved in Carcinoid syndrome is:
(a) Mitral valve
(b) Tricuspid valve
(c) Aortic valve
(d) Pulmonary valve

2018

454. A 70 year old man reports to the emergency with acute chest pain. ECG shows inferior wall Myocardial Infarction (MI). He has recently been discharged 7 days back following thrombolysis with streptokinase for Acute Anterior wall MI. What will be the appropriate management?
(a) Aspirin, Sublingual nitroglycerin, Clopidogrel, Primary PCI
(b) Aspirin, Sublingual nitroglycerin, Clopidogrel, Streptokinase
(c) Aspirin, Sublingual nitroglycerin, Clopidogrel, Heparin
(d) Aspirin, Sublingual nitroglycerin, Clopidogrel, Beta blockers

2018

455. The presence of a fusion beat on an Electrocardiogram is diagnostic of:
(a) Atrial Fibrillation
(b) Ventricular Tachycardia
(c) Supraventricular Tachycardia
(d) Sinus Bradycardia

2018

456. A 64 year old man presents with chest pain of 24 hours duration. His ECG reveals ST elevation, Anterior Wall Myocardial Infarction. The preferred treatment modality for him is:
(a) Primary percutaneous coronary intervention
(b) Thrombolysis with Alteplase
(c) Thrombolysis with Streptokinase
(d) Nitroglycerin infusion , Aspirin and Beta blockers

2018

NODIA

457. The preferred anti hypertensive drug for a 74 year old male with benign prostatic hypertrophy is:
(a) Amlodepine
(b) Hydrochlorothiazide
(c) Prazosin
(d) Atenolol

2018

458. The treatment of choice for a 32 year old male patient of severe mitral stenosis (Rheumatic) with thickened and calcified valves on echo cardiography is:
(a) Balloon valvuloplasty
(b) Mitral valve replacement
(c) Medical management only
(d) Mitral valvotomy

2018

459. Which one of the following is an example of Type-IV respiratory failure?
(a) Bronchial asthma
(b) Pulmonary embolism
(c) COPD
(d) Shock

2018

460. All of the following are seen in Polyarteritis Nodosa EXCEPT:
(a) Glomerulonephritis
(b) Peripheral Neuropathy
(c) Bowel Infarction
(d) Pericarditis

2018

461. All of the following are the pointers to organic cause of psychiatric disease EXCEPT:
(a) Late age of onset of psychiatric illness
(b) No previous history of psychiatric illness
(c) Family history of psychiatric illness
(d) No apparent psychological precipitant

2018

462. All of the following are Long Acting Beta Agonists (LABA) EXCEPT:
(a) Levo salbutamol
(b) Salmeterol
(c) Formoterol
(d) Indacaterol

2018

463. A 26 year old woman presents with fever, arthralgia and erythema nodosum. Her chest X-ray reveals bilateral hilar lymphadenopathy. Her mantoux test is negative. The most likely diagnosis is:
(a) Tuberculosis
(b) Allergic bronchopulmonary aspergillosis
(c) Sarcoidosis
(d) Pulmonary thromboembolism

2018

464. Which of the following are the characteristics of Exudative pleural effusion?
1. Pleural fluid protein/serum protein 0.5
2. Pleural fluid protein/serum protein < 0.5
3. Pleural fluid LDH/serum LDH 0.6
4. Pleural fluid LDH/serum LDH < 0.6

Select the correct answer using the code given below:
(a) 1 and 3
(b) 1 and 4
(c) 2 and 3
(d) 2 and 4

2018

465. All of the following are seen in Whipple's disease EXCEPT:
(a) Weight loss
(b) Migratory arthropathy
(c) Dementia
(d) Hemolytic anemia

2018

466. A middle aged patient with chronic liver disease presents with pain abdomen and distension. He also has diarrhoea and fever since one day. On examination, he is hemodynamically stable with fever of 100 °F. There is jaundice, pallor, pedal edema and ascites. A diagnostic paracentesis is done. Ascitic fluid protein is 0.8 gm%, sugar 100 mg%, total count 500/mm^3 of which 85% are polymorphonuclear leukocytes and 15% lymphocytes. Most likely diagnosis is:
(a) Spontaneous bacterial peritonitis
(b) Secondary bacterial peritonitis
(c) Perforation peritonitis
(d) T B peritonitis

2018

467. Herald patch followed by rash is characteristic of:
(a) Psoriasis
(b) Lichen planus
(c) Pityriasis rosea
(d) Dermatophytosis

2018

Downloaded from www.pdf.tube

468. A young male comes to the OPD with history of jaundice since many years. He has noted that the jaundice may fluctuate but is often aggravated when he is fasting. There is no history of hospitalization, no drug use, alcoholism or blood transfusion. Family history is not significant. Clinical examination is unremarkable except for mild scleral icterus. What is the likely diagnosis?
(a) Dubin Johnson syndrome
(b) Crigler Najjar syndrome type-I
(c) Gilbert's syndrome
(d) Rotor syndrome

2018

469. All of the following are causes of anemia in a case of chronic kidney disease EXCEPT:
(a) Decreased red blood cell survival
(b) Hemoglobinopathy
(c) Erythropoietin deficiency
(d) Gastrointestinal blood loss

2018

470. Characteristic feature of upper motor neuron lesion includes:
(a) Fasciculations
(b) Hyperreflexia
(c) Clonus
(d) Muscle wasting

2018

471. Which one of the following arteries is involved in causation of lateral medullary syndrome?
(a) Anterior superior cerebellar artery
(b) Anterior inferior cerebellar artery
(c) Posterior superior cerebellar artery
(d) Posterior inferior cerebellar artery

2018

472. A right handed 70 year old man has a brain scan which reveals a lesion that has damaged his left angular and supramarginal gyrus. On examination, one would expect the following EXCEPT:
(a) Difficulty with left to right discrimination
(b) Inappropriate affect
(c) Finger agnosia
(d) Inability to write

2018

473. Total iron binding capacity of more than 360 μg/dl is seen in anemia due to:
(a) Chronic inflammation
(b) Hemoglobinopathies
(c) Sideroblastic anemia
(d) Iron deficiency anaemia

2018

NODIA

474. Escape behavior with paroxysmal occurrence is seen in:
(a) Phobic disorder
(b) Anxiety disorder
(c) Obsessive compulsive disorder
(d) Panic disorder

2018

475. Which of the following conditions are associated with prolonged prothrombin time?
1. Factor VIII deficiency
2. Factor VII deficiency
3. Heparin anticoagulation
4. Warfarin anticoagulation

Select the correct answer using the code given below:
(a) 1 and 4
(b) 1 and 3
(c) 2 and 3
(d) 2 and 4

2018

476. Syndrome X includes:
(a) Hyperlipidemia, Obesity, Type-2 DM
(b) Obesity, CAD, COPD
(c) Hyperlipidemia, Hyperuricemia with CAD
(d) Hyponatremia, Hyperlipidemia with type-2 DM

2018

477. Growth hormone secretion is inhibited by:
(a) Arginine
(b) Glucose
(c) Clonidine
(d) L-Dopa

2018

478. Which one of the following drugs causes hypercalcemia?
(a) Phenytoin
(b) Heparin
(c) Lithium
(d) Furosemide

2018

479. All of the following insolence are longer acting EXCEPT:
(a) Glargine
(b) Degludec
(c) Glulisine

(d) Detemir

2018

480. The presence of vitiligo on examination suggests an associated:
(a) Autoimmune disease
(b) Degenerative disease
(c) Infection
(d) Malignancy

2018

481. A mildly elevated TSH (5–20 mU/L) along with a normal T3 and normal T4 levels is suggestive of :
(a) Primary hypothyroidism
(b) Subclinical hypothyroidism
(c) Artefact
(d) Thyroid hormone resistance

2018

482. Which one of the following suggests patient to be prediabetic?
(a) HbA1c 5.6%, FPG 126 mg/dL
(b) HbA1c 6%, FPG 130 mg/dL
(c) HbA1c 6.2%, FPG 105 mg/dL
(d) HbA1c 6.6%, FPG 115 mg/dL

2018

483. Which one of the following conditions is NOT associated with lymphocytosis?
(a) Infectious mononucleosis
(b) Viral fevers
(c) Rickettsial fevers
(d) Leptospirosis

2018

484. Hip Flexor Spasm is characteristic of:
(a) Osteomyelitis femur
(b) Septic arthritis hip joint
(c) Psoas abscess
(d) Deep vein thrombosis

2018

485. Perception of an object in absence of stimulus is:
(a) Illusions
(b) Delusions
(c) Hallucination
(d) Psychosis

2018

486. All of the following drugs can be used for the treatment for cessation of smoking EXCEPT:
(a) Nicotine gum
(b) Clonazepam
(c) Bupropion
(d) Varenicline

2018

487. A 35 year old man with history of alcoholism presents with ophthalmoplegia, ataxia and global confusion. The treatment of choice for this patient is:
(a) I.V. Glucose
(b) I.V. Thiamine
(c) I.V. Mannitol
(d) I.V. Immunoglobulin

2018

488. Most common form of paroxysmal supraventricular Tachycardia is:
(a) Junctional Ectopic Tachycardia
(b) AV Nodal Reentry Tachycardia (AVNRT)
(c) Accessory Pathways
(d) Accelerated junctional rhythm

2018

489. The primary therapeutic intervention in symptomatic Sino atrial node dysfunction is:
(a) I.V. Atropine
(b) I.V. Isoprenaline
(c) Permanent pacemaker
(d) I.V. Theophylline

2018

490. Which of the following are the Indications for lung transplantation?
1. Emphysema
2. Primary pulmonary hypertension
3. Obliterative bronchiolitis

Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2018

491. Which one of the following is used to distinguish narrowing of large airway from small airway?
(a) Peak expiratory flow rate is measured
(b) Flow/volume loops are recorded
(c) Forced expiratory volume in one second is measured
(d) Flow/time loops are recorded

2018

492. The most common cause of chronic relapsing diarrhoea is:

Click Here to Buy book on Amazon

(a) Inflammatory bowel disease
(b) Coeliac disease
(c) Microscopic colitis
(d) Irritable bowel syndrome

2018

493. The most common cause of severe acute lower gastrointestinal bleeding is:
(a) Angiodysplasia of colon
(b) Diverticular disease
(c) Ischaemia of bowel
(d) Inflammatory bowel disease

2018

494. Risk scoring system used to stratify the patients of acute upper gastrointestinal bleeding to predict the need for intervention to treat bleeding is:
(a) Modified Blatchford score
(b) Modified Child Pugh score
(c) Balthazar score
(d) Meld score

2018

495. Which of the following are the indications of Renal biopsy?
1. Chronic Kidney disease with normal sized kidney
2. Nephrotic syndrome in adults
3. Nephrotic syndrome in children with atypical features

Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2018

496. Which of the following are common risk factors for contrast Induced Nephrotoxicity?
1. Use of high osmolality, ionic contrast media
2. Diabetes Mellitus
3. Myeloma

Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2018

497. Presence of Dysmorphic Erythrocytes in urine analysis is suggestive of:
(a) Pyelonephritis
(b) Nephritis
(c) Renal stone disease
(d) Renal tract infection

2018

498. Syndrome of Inappropriate ADH secretion (SIADH) is usually associated with:
(a) Small cell lung cancer
(b) Squamous cell lung cancer
(c) Large cell lung cancer
(d) Adenocarcinoma lung cancer

2018

499. A silent, resonant Hemithorax on examination is suggestive of:
(a) Large Pleural effusion
(b) Pneumothorax
(c) Bronchial asthma
(d) Consolidation

2018

500. Gower's sign is positive in:
(a) Peroneal muscle atrophy
(b) Duchenne's dystrophy
(c) Friedreich ataxia
(d) Cerebellar disease

2018

501. All of the following are the indications of renal replacement therapy EXCEPT:
(a) Metabolic Acidosis (pH < 7.25)
(b) Hypercalcemia
(c) Hyperkalemia (K^+ 6 mmol/L)
(d) Fluid overload

2018

502. Which one of the following drugs can cause Pulmonary Eosinophilia?
(a) Nitrofurantoin
(b) Valproate
(c) Enalapril
(d) Amoxycillin

2018

503. CA 19-9 is a tumour marker used for the diagnosis of:
(a) Lung cancer
(b) Prostate cancer
(c) Ovarian cancer
(d) Pancreatic cancer

2018

504. Tinea versicolor is caused by:

Downloaded from www.pdf.tube

(a) Candida albicans
(b) Trichophyton
(c) Streptococci
(d) Malassezia furfur

2018

505. Disease modifying agent of choice for the peripheral manifestations of ankylosing spondylitis is:
(a) Methotrexate
(b) Hydroxy chloroquine
(c) Self-analyses
(d) Leflunomide

2018

506. Drug of choice for treating hypertensive emergency in a case of Aortic dissection is:
(a) Phentolamine
(b) Prazosin
(c) Nitroprusside
(d) Amlodipine

2018

507. Which of the following is NOT correct?
(a) Hepatitis A does not lead to massive hepatic necrosis
(b) Hepatitis B vaccination is part of universal childhood vaccination
(c) Hepatitis C is commonest cause of transfusion transmitted hepatitis
(d) Hepatitis E carries very high mortality in pregnant women

2017

508. Which of the following least predisposes to infective endocarditis?
(a) Ventricular septal defect
(b) Atrial septal defect
(c) Patent ductus arteriosus
(d) Tetralogy of Fallot

2017

509. A 60 year old male with Marfan's syndrome comes to emergency department with severe generalised tearing pain localised to chest anteriorly and inter scapular region, sweating and weakness. On examination, his BP is 200/140 mm Hg. X ray chest shows widening of superior mediastinum. ECG shows sinus tachycardia. What is the most likely diagnosis?
(a) Acute pulmonary embolism
(b) Dissection of aorta
(c) Acute myocardial infarction
(d) Acute pericarditis

2017

510. A patient who is allergic to penicillin can be prescribed which of the following drugs for prophylaxis of acute rheumatic fever?
(a) Ciprofloxacin
(b) Erythromycin
(c) Cotrimoxazole
(d) Tetracycline

2017

511. QT interval is prolonged in:
(a) Hypocalcaemia
(b) Hyperkalemia
(c) Hypermodernism
(d) Digoxin therapy

2017

NODIA

512. Differential cyanosis is seen in:
(a) Atrial septal defect with pulmonary arterial hypertension
(b) Ventricular septal defect with pulmonary arterial hypertension
(c) Patent ductus arteriosus with pulmonary arterial hypertension
(d) Fallot tetralogy

2017

513. Wilson's disease is characterised by all EXCEPT:
(a) Increased urinary copper
(b) Increased hepatic copper
(c) Deposition of copper in Descemet's membrane
(d) Increased serum ceruloplasmin

2017

514. Following drugs are used for H.Pylori eradication EXCEPT:
(a) Amoxycillin
(b) Bismuth subsalicylate
(c) Tetracycline
(d) Cephalexin

2017

515. A 45 year old female comes to you with dysphagia. She is found to have anaemia and koilonychia. Most likely diagnosis is:
(a) Plummer Vinson syndrome
(b) Boerhaave syndrome
(c) Carcinoma oesophagus
(d) Reflux oesophagi tis

2017

516. Chest tube insertion should be considered in a patient with parapneumonic effusion include the following EXCEPT:
(a) Loculated pleural effusion
(b) Positive Gram stain/culture of pleural fluid
(c) Pleural effusion is less than 10 mm thickness on decubitus
(d) Pleural fluid pH less than 7.20

2017

517. A patient underwent hip replacement surgery. On fourth post-operative day, he had dyspnoea, pleuritic pain and haemoptysis. Most likely diagnosis is:
(a) Pulmonary embolism
(b) Pneumonia
(c) Pulmonary oedema
(d) Pericarditis

2017

518. A 55 year old male with a history of chronic obstructive pulmonary disease was rushed to emergency department with increasing shortness of breath, fever and a productive cough with yellow green sputum. He has difficulty in communicating because of his inability to complete a sentence. Measurement of arterial blood gas shows pH 7.3, $PaCO_2$ 68 mmHg, HCO_3 28 mmol/L, and PaO_2 60 mmHg. How would you interpret this?
(a) Respiratory acidosis, uncompensated
(b) Respiratory alkalosis, uncompensated
(c) Respiratory acidosis, partially compensated
(d) Respiratory alkalosis, partially compensated

2017

519. A 40 years old woman presents with hematuria, ecchymoses and menorrhagia of six months duration. What is the most likely diagnosis?
(a) Haemophilia A
(b) Haemophilia B
(c) Idiopathic thrombocytopaenic purpura
(d) Henoch Schonlein purpura

2017

520. A patient develops skin necrosis 3 days after being started on warfarin for deep vein thrombosis. What is the most likely cause?
(a) Anti phospholipid antibody syndrome
(b) Protein C deficiency
(c) Disseminated intravascular coagulation
(d) Thrombotic thrombocytopenic purpura

2017

521. A child presents with episode of hematuria soon after respiratory tract infection. What is the most likely diagnosis?
(a) IgA nephropathy
(b) Wegener granulomatosis
(c) Post streptococcal glomerulonephritis
(d) Churg Strauss syndrome

2017

522. In micro albuminuria, 24 hours urinary albumin is:
(a) 8-10 mg
(b) 30-300 mg
(c) 300-3000 mg
(d) 3000 mg

2017

523. Following are complications of acute renal failure EXCEPT:
(a) Intravascular volume overload
(b) Hyponatremia
(c) Hyperkalemia
(d) Metabolic alkalosis

2017

524. Deficiency of which vitamin causes subacute combined degeneration of spinal cord?
(a) Vitamin B1
(b) Vitamin B6
(c) Vitamin B2
(d) Vitamin B12

2017

525. Obstructive lung function tests are seen in which of the following conditions?
(a) Obesity
(b) Kyphoscoliosis
(c) Pleural effusion
(d) Asthma

2017

526. In which of the following conditions is there an increase in lung diffusion capacity?
(a) Emphysema
(b) Idiopathic pulmonary fibrosis
(c) Alveolar hemorrhage
(d) Pulmonary oedema

2017

527. Which one of the following statements is correct?
(a) Omalizumab is an antileukotriene
(b) Omalizumab is a blocking antibody that neutralises circulating IgE

Click Here to Buy book on Amazon

(c) Omalizumab is a newer long acting anticholinergic agent
(d) Omalizumab is once a day long acting beta-2 agonistic

2017

528. Widespread concave ST segment elevation and PR depression in most leads except aVR lead favours the diagnosis of:
(a) Acute myocardial infarction
(b) Pericarditis
(c) Digoxin toxicity
(d) Hypertrophic obstructive cardiomyopathy

2017

529. Which of the following is not true regarding congestive cardiac failure in the elderly?
(a) Incidence rises with age
(b) Common causes include coronary artery disease and hypertension
(c) Diastolic dysfunction is often present
(d) Loop diuretics are usually well tolerated

2017

530. Aortic stenosis is associated with:
(a) Pulsus paradoxus
(b) Pulsus parvus et tardus
(c) Pulsus alternates bisferens
(d) Pulsus bigeminus

2017

531. Which of the following is associated with hypercoagulable state?
1. Protein C deficiency
2. Antiphospholipid syndrome
3. Homocystinemia

Select the correct answer using the code given below:
(a) 1 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2017

532. A 20 year old male walked into outpatient department with high grade fever, cough and chest pain for one day. Chest X-ray showed consolidation of left upper zone. His respiratory rate is 22/minute, pulse rate 96/minute, BP systolic 120 mmHg and blood urea 18 mg/dl. What is his CURB score?
(a) 0
(b) 1
(c) 2
(d) 3

2017

NODIA

533. Which of the following conditions is an autosomal dominant disorder?
(a) G-6PD deficiency
(b) Sickle cell disease
(c) Fanconi anaemia
(d) Marfan syndrome

2017

534. Consider the following statements regarding the treatment of bronchial asthma:
1. Tablets of β_2 adrenoceptor agonist are better than aerosol therapy
2. Inhaled corticosteroids are contraindicated in acute severe asthma
3. Oral steroids may be necessary for severe acute asthma
4. Anticholinergic bronchodilator are muscarinic antagonists
5. Salmeterol and formulator are highly selective and potent long acting β_2 adrenoceptor agonists

Which of the statements given above are true?
(a) 1, 4 and 5 only
(b) 3, 4 and 5 only
(c) 1, 2 and 5 only
(d) 1, 2 and 3 only

2017

535. Acute massive pulmonary embolism is manifested by the following EXCEPT:
(a) Reduced PaO_2 and reduced $PaCO_2$
(b) Pulmonary opacities in chest X ray
(c) $S_1Q_3T_3$ with RBBB in ECG
(d) Reduced cardiac output and acute right heart failure

2017

536. A patient of COPD develops a large pneumothorax during a violent bout of coughing. The most appropriate management would be:
1. Simple aspiration
2. Tube thoracostomy
3. Pleurodesis

Which of the above is/are correct?
(a) 1 and 2
(b) 2 and 3
(c) 1 and 3
(d) 2 only

2017

537. Carbon dioxide tension ($PaCO_2$) in arterial blood at sea level is:
(a) Less than 25 mm of Hg
(b) 25-35 mm of Hg
(c) 35-45 mm of Hg
(d) 45-55 mm of Hg

2017

538. The volume of fresh air entering the alveoli each minute is called as:
(a) Dead space
(b) Diffusing capacity
(c) Alveolar ventilation
(d) Ventilation perfusion

2017

539. Exacerbations of bronchial asthma that occur with little or no warning are called:
(a) Brittle asthma
(b) Acute severe asthma
(c) Poorly controlled asthma
(d) Nocturnal asthma

2017

540. Which of the following constituents of antacid can cause constipation?
(a) Magnesium hydroxide
(b) Aluminium hydroxide
(c) Calcium carbonate
(d) Sodium bicarbonate

2017

541. 'TIPS' procedure in the treatment of cirrhosis liver stands for:
(a) Transvenous intrahepatic portal shunt
(b) Transvenous intraabdominal portal shunt
(c) Transjugular intrahepatic portosystemic shunt
(d) Transjugular intrahepatic peritoneal shunt

2017

542. Which of the following statements is NOT true regarding neuroleptic malignant syndrome?
(a) Caused by haloperidol
(b) Characterized by muscle rigidity and hyperthermia
(c) There is stimulation of central dopamine receptors in hypothalamus
(d) Treated by IV dantrolene

2017

543. Type IV renal tubular acidosis may be caused by all of the following EXCEPT:
(a) Low molecular weight heparin
(b) NSAIDS
(c) Penicillin
(d) Trimethoprim

2017

544. Treatment options available for management of renal artery stenosis is/are:
(a) Medical treatment for hypertension by antihypertensive drugs
(b) Angioplasty, with or without stenting
(c) Renal artery bypass surgery
(d) All of these

2017

545. A reversible cause of dementia is:
(a) Alzheimer disease
(b) Huntington chorea
(c) Parkinson disease
(d) Subdural haematoma

2017

546. In Wallenberg syndrome, where is the site of lesion?
(a) Lateral medulla
(b) Medial medulla
(c) Pontomedullary junction
(d) Dorsal midbrain

2017

547. The following are features of polycythaemia vera EXCEPT:
(a) Elevated red cell mass
(b) Normal arterial oxygen saturation
(c) Splenomegaly
(d) Elevated plasma erythropoietin levels

2017

548. Which of the following conditions is associated with cigarette smoking?
(a) Non-specific interstitial pneumonia
(b) Acute interstitial pneumonia
(c) Cryptogenic organizing pneumonia
(d) Desquamative interstitial pneumonia

2017

549. Which of the following is NOT true of Wilson disease?
(a) There is hepatomegalic degeneration
(b) Autosomal recessive transmission
(c) Serum ceruloplasmin is increased
(d) Urinary copper is increased

Downloaded from www.pdf.tube

2017

550. The following diseases can cause bullous lesions in the skin EXCEPT:
(a) Pemphigus
(b) Impetigo
(c) Toxic epidermal necrolysis
(d) Pityriasis rosea

2017

551. Which of the following disorder is autosomal recessive?
(a) Cystic fibrosis
(b) Nail-patella syndrome
(c) Myotonic dystrophy
(d) Huntington disease

2017

552. Intravenous immunoglobulin therapy is approved in the following conditions EXCEPT:
(a) Kawasaki disease
(b) Severe rheumatoid arthritis
(c) Guillain Barre syndrome
(d) Dermatomyositis

2017

553. Which of the following does NOT cause small vessel vasculitis?
(a) Churg Strauss Syndrome
(b) Henoch-Schonlein purpura
(c) Kawasaki disease
(d) Granulomatosis with polyangiitis

2017

554. Most common cells in peripheral blood smear of chronic myeloid leukemia are:
(a) Myeloblasts
(b) Promyelocytes
(c) Metamyelocytes
(d) Neutrophils

2017

555. Consider the following statements about infective endocarditis:
1. Modified Duke criteria are used for clinical diagnosis
2. Echo cardiographic findings form one of the major Duke criteria
3. Presence of one major and two minor criteria is considered as diagnostic of endocarditis
4. Presence of glomerulonephritis is a minor Duke criterion

Which of the statements given above are correct?
(a) 1, 2 and 3 only
(b) 1, 2 and 4 only
(c) 3 and 4 only
(d) 1, 2, 3 and 4

2017

556. A 16 year old had an acute episode of dyspnoea, wheezing and coughing during early morning hours. The episode resolved spontaneously. What is the likely diagnosis?
(a) Pulmonary oedema
(b) Asthma
(c) Panic attack
(d) Pneumonia

2017

557. An elderly patient had cerebrovascular accident which was diagnosed as ischaemic in nature. Which of the following is a contraindication for thrombolysis?
1. Onset of symptoms to time of drug administration is $\leq$ 4.5 hours
2. Gastrointestinal bleeding in preceding 21 days

Select the correct answer using the code given below:
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

2017

558. Consider the following insulin preparations:
1. Aspart
2. Glulisine
3. Detemir
4. Regular

Which of the above are considered short acting insulin?
(a) 1 and 2 only
(b) 3 and 4 only
(c) 1, 2 and 4 only
(d) 1, 2, 3 and 4

2017

559. A middle aged male known smoker presented with recurrent sinusitis, hemoptysis, hematuria, arthralgia and palpable purpura. What is the most likely diagnosis?
(a) Wegener granulomatosis
(b) Goodpasture syndrome
(c) Polyarteritis nodosa
(d) Systemic lupus erythematosus

2017

NODIA

560. A patient presents with diarrhoea, steatorrhea and weight loss. Which of the following diseases is LEAST possible?
(a) Whipple disease
(b) Tropical sprue
(c) Celiac disease
(d) Menetrier disease

2017

561. Consider the following statements regarding post-streptococcal glomerulonephritis (PSGN):
1. Immunosuppressive therapy is effective
2. PSGN develops one to three weeks after streptococcal pharyngitis
3. PSGN develops two to six weeks after impetigo
4. The classic presentation is acute nephritis

Which of the statements given above are correct?
(a) 1, 2 and 3 only
(b) 2, 3 and 4 only
(c) 1 and 4 only
(d) 1, 2, 3 and 4

2017

562. A patient with long term implantable cardioverter defibrillator device developed neck and facial swelling, hoarseness of voice, nasal congestion, dysphagia and hemoptysis. The facial swelling increased on supine position. This patient most likely developed:
(a) Cardiac tamponade
(b) Intracardiac thrombosis
(c) Superior vena cava obstruction
(d) Pulmonary thromboembolism

2017

563. An elderly male presents with persistent productive cough with large volume purulent sputum production. He has had several episodes in the past. He also had digital clubbing. He is a case of:
(a) Empyema
(b) Bronchiectasis
(c) Bronchopneumonia
(d) Necrotising pneumonia

2017

564. A chemical factory worker has acute onset dyspnoea with fever, chills, and malaise, following a few hours of exposure to a new chemical. These symptoms resolve in four to five days after removal from exposure. He is likely to have:
(a) Hypersensitivity pneumonitis
(b) Atypical pneumonia
(c) Cryptogenic organising pneumonia
(d) Non-specific interstitial pneumonia

2017

565. A 40-year old male is admitted with acute inferior wall myocardial infarction. Half an hour later his B.P. is 80/50 mm Hg and heart rate is 40/minute with sinus rhythm. The most appropriate step in the management of this patient would be:
(a) Administration of normal saline 300 ml over 15 minutes
(b) Immediate insertion of temporary pacemaker
(c) Intravenous administration of atropine sulfate
(d) Intravenous administration of iso-prenaline 50 μg/minute

2016

566. The characteristic feature of tricuspid insufficiency in the jugular venous pulse is:
(a) Prominent 'a' wave
(b) Exaggerated 'x' and 'y' descents
(c) Cannon waves
(d) Obliteration of the 'x' descent and prominent 'CV' wave

2016

567. Match List I with List II and select the correct answer using the code given below the lists:

	List I		**List II**
A.	Osler's node	1.	Patent ductus arteriosus with reversal of shunt
B.	Differential cyanosis	2.	Aortic stenosis with aortic regurgitation
C.	Bisferiens pulse	3.	Pulmonary hypertension
D.	Graham Steell murmur	4.	Subacute bacterial endocarditis

(a) A4 B1 C2 D3
(b) A4 B1 C3 D2
(c) A1 B4 C2 D3
(d) A1 B4 C3 D2

2016

568. Acute aortic regurgitation occurs in:

Click Here to Buy book on Amazon

(a) Infective endocarditis
(b) Ankylosing spondylitis
(c) Marfan's syndrome
(d) Rheumatoid arthritis

2016

569. The following are early complications of acute myocardial infarction except:
(a) Papillary muscle dysfunction
(b) Ventricular septal defect
(c) Ventricular free wall rupture
(d) Dressler's syndrome

2016

570. For which one of the following serum proteins, the levels of protein do not decrease in nephrotic syndrome?
(a) Albumin
(b) Transferrin
(c) Fibrinogen
(d) Ceruloplasmin

2016

571. Following are the causes of high anion-gap acidosis except:
(a) Renal tubular acidosis
(b) Acute renal failure
(c) Chronic renal failure
(d) Diabetic ketoacidosis

2016

572. A patient of cirrhosis develops oliguria and worsening azotemia. Urinary sediment is normal. Urinary sodium concentration is 5 mEq/L. The most likely cause could be:
(a) Interstitial nephritis
(b) Acute tubular necrosis
(c) Acute glomerulonephritis
(d) Hepato-renal syndrome

2016

573. Consider the following:
1. Failure to swing the arms while walking
2. Nystagmus
3. Cogwheel rigidity
4. Festinate gait

Typical features of Parkinsonism include which of the above?
(a) 2, 3 and 4
(b) 1, 2 and 4
(c) 1 and 3 only
(d) 1, 3 and 4

2016

574. Consider the following sites of lesion:
1. Left optic tract
2. Left optic radiation
3. Optic chiasma
4. Left lateral geniculate body

Right homonymous hemianopia will result from lesions at which of the above?
(a) 1 and 3 only
(b) 1, 2 and 4
(c) 2, 3 and 4
(d) 1, 2 and 3

2016

575. Raised alkaline phosphatase is seen in the following except:
(a) Hyperparathyroidism
(b) Obstructive jaundice
(c) Osteomalacia
(d) Multiple myeloma

2016

NODIA

576. Consider the following statements about acromegaly:
1. Fibroma molluscum and acanthosis nigricans are common findings.
2. Growth hormone secretion is increased by TRH in 50 to 80% of acromegalies.
3. Acroosteolysis is a common radiological finding.
4. Diabetes mellitus may be associated in nearly 25% of acromegalies.

Which of the statements given above are correct?
(a) 1, 2 and 3
(b) 1, 3 and 4
(c) 1, 2 and 4
(d) 2, 3 and 4

2016

577. Causes of hypomagnesemia include all of the following except:
(a) Betablocker
(b) Chronic pancreatic insufficiency
(c) Poorly controlled diabetes mellitus
(d) Alcoholism

2016

578. Which of the following conditions are associated with secondary diabetes mellitus?
1. Thyrotoxicosis, pheochromocytoma and acromegaly
2. Haemochromatosis
3. Pancreatic carcinoma

Select the correct answer using the code given below:
(a) 2 and 3 only
(b) 1, 2 and 3
(c) 1 and 3 only
(d) 1 and 2 only

2016

579. Which one of the following is not the ECG change of hyperkalemia?
(a) Tall T-wave
(b) Tall P-wave
(c) Prolonged PR interval
(d) QRS- widening

2016

580. Which one of the following immunological reactions occurs in Goodpasture's syndrome?
(a) Type I Atopy
(b) Type II cytotoxicity
(c) Type III immune complex
(d) Type IV cell mediation

2016

581. SVC syndrome can occur in the following except:
(a) Pneumomediastinum
(b) Goitre
(c) Bronchogenic carcinoma
(d) Lymphoma

2016

582. Match List I with List II and select the correct answer using the code given below the lists:

	List I		**List II**
A.	Koebner phenomenon	1.	Lepra reaction
B.	Erythema nodosum	2.	Pemphigus vulgaris
C.	Erythema multiforme	3.	Stevens-Johnson syndrome
D.	Nikolsky's sign	4.	Psoriasis

(a) A1 B4 C3 D2
(b) 4 1 2 3
(c) 1 4 2 3
(d) 4 1 3 2

2016

583. Which one of the following is the major site of absorption of Vitamin B12?
(a) Stomach
(b) Terminal ileum
(c) Duodenum
(d) Mid Jejunum

2016

584. The following features regarding polymyositis are true except:
(a) Progressive proximal muscle involvement
(b) 25% patients may present with dysphagia
(c) Ocular muscle involvement is common
(d) Elevated levels of serum creatine kinase

2016

585. Match List I with List II and select the correct answer using the code given below the lists:

	List I		**List II**
A.	Reiter's Syndrome	1.	Onycholysis
B.	Rheumatoid arthritis	2.	Keratoderma blennorrhagica
C.	Psoriatic arthritis	3.	Xerostomia
D.	Sjögren's syndrome	4.	Baker's cysts

(a) 4 2 3 1
(b) 2 4 1 3
(c) 2 4 3 1
(d) 4 2 1 3

2016

586. The following drugs are useful in generalized anxiety disorders except:
(a) Resperidone
(b) Amitriptyline
(c) Buspirone
(d) Venlafaxine

2016

587. Cardiac troponin may be elevated in:
(a) Muscular dystrophy
(b) Chronic kidney failure
(c) Acute liver failure
(d) Epilepsy

2016

588. Which of the following are the physiological abnormalities in chronic obstructive lung disease?
1. Reduced total lung capacity (TLC)
2. Increased functional residual capacity (FRC)
3. Increased residual volume (RV)
4. Increased RV/TLC ratio

NODIA

Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 2, 3 and 4
(c) 1, 3 and 4
(d) 3 and 4 only

2016

589. Consider the following statements:
Acute respiratory distress syndrome characteristically occurs in
1. Gram negative septicaemia
2. Gastric aspiration
3. Pancreatitis
4. Severe burns
5. Myocarditis

Which of the statements given above are correct?
(a) 2, 3, 4 and 5
(b) 1, 3, 4 and 5
(c) 1, 2 and 5
(d) 1, 2, 3 and 4

2016

590. A 55-year old man, non-smoker, presents with sudden onset of shortness of breath. On examination, pulse rate is 110/minute and B.P. 180/110 mm Hg. Patient is restless and anxious. Examination of chest shows bilateral rhonchi and crepitations. S3 gallop is heard on auscultation of precordium. There is no history of chronic bronchitis. The most likely diagnosis is:
(a) Bronchial asthma
(b) Acute LVF
(c) Pneumothorax
(d) Acute exacerbation of COPD

2016

591. Consider the following statements:
Small cell carcinoma of lung is commonly associated with the following para neoplastic syndromes:
1. Ectopic ACTH production
2. Lambert-Eaton syndrome
3. Syndrome of inappropriate ADH (SIADH)
4. Addison's disease

Which of the statements given above are correct?
(a) 1, 2 and 3
(b) 2, 3 and 4
(c) 1, 3 and 4
(d) 1, 2 and 4

2016

592. On abdominal percussion, liver dullness may be obliterated in the following except:
(a) Fatty liver
(b) Emphysema
(c) Perforated viscus
(d) Fulminant hepatitis

2016

593. Consider the following statements regarding Helicoptered pylori:
1. It is a gram negative bacterium
2. It invades the epithelium
3. It produces urease
4. It produces chronic gastritis

Which of the statements given above are correct?
(a) 1, 2 and 4
(b) 1 and 3 only
(c) 2 and 4 only
(d) 1, 3 and 4

2016

594. Consider the following conditions:
1. Steroid therapy
2. Hypertriglyceridaemia
3. Hypercalcaemia
4. Azathioprine therapy

Acute pancreatitis may occur in which of the above conditions?
(a) 1, 2 and 3 only
(b) 2 and 4 only
(c) 1, 3 and 4 only
(d) 1, 2, 3 and 4

2016

595. A 60-year old patient presents with gradually increasing dysphagia to solids for 3 months with significant loss of weight. The most probable diagnosis is:
(a) Stricture oesophagus
(b) Carcinoma oesophagus
(c) Reflux oesophagi tis
(d) Neurogenic oesophagus

2016

596. The following statements about peptic ulcer are true except:
(a) Eradication of H. pylori is a part of medical management.
(b) Duodenal ulcer invariably changes into malignant.
(c) Complications are indication for surgery.
(d) Zollinger-Ellison syndrome is associated with intractable peptic ulceration.

Downloaded from www.pdf.tube

2016

597. Which one of the following neoplasms can lead to 'water intoxication'?
(a) Oat cell carcinoma of bronchus
(b) Hepatopancreas
(c) Testicular tumours
(d) Rhabdomyosarcoma

2016

598. The following statements regarding Hodgkin's disease are true except:
(a) It usually presents as painless lymphadenopathy.
(b) The Pel-Ebstein fever is a characteristic feature.
(c) Stage III disease is confined to one side of the diaphragm.
(d) Reed-Sternberg cells are a diagnostic feature.

2016

599. Following are causes of bleeding except:
(a) Heparin induced thrombocytopenia
(b) Dengue fever
(c) ITP
(d) Aspirin

2016

600. The combination of cyanosis with clubbing can be seen in the following conditions except:
(a) Eisenmenger syndrome
(b) Lung abscess
(c) Chronic bronchitis
(d) Pulmonary AV fistula

2016

601. A 16-year old boy presents with exertional dyspnea, hemoptysis and occasionally paroxysmal nocturnal dyspnea. There was history of joint pains five years back. The most probable diagnosis is:
(a) Aortic regurgitation
(b) Mitral stenosis
(c) Tricuspid stenosis
(d) Aortic stenosis

2016

602. Consider the following statements:
The Adrenocortical insufficiency may result in
1. Hyponatremia
2. Hypokalemia
3. Acidosis
4. Hyperglycemia

Which of the statements given above is/are correct?
(a) 1 only
(b) 1 and 3
(c) 2 and 4 only
(d) 2, 3 and 4

2016

NODIA

603. The following are true regarding Zollinger-Ellison syndrome except:
(a) Common age group is 30 to 50 years
(b) Gastrin level is usually high
(c) Diarrhea can be an associated feature
(d) It occurs in association with MEN-2 syndrome

2016

604. The following may be seen in a patient with chronic liver disease except:
(a) Prolonged PT
(b) Prolonged PTT
(c) Thrombocytopenia
(d) Decreased factor VIII

2016

605. A patient presents with breathlessness and occasional dry cough. On physical examination, he is found to have bilateral basal crepitations. His pulmonary function tests reveal a decrease in total lung capacity and vital capacity, with normal FEV_1/FVC ratio. He is most likely suffering from:
(a) Chronic bronchitis
(b) Idiopathic pulmonary fibrosis
(c) Cystic fibrosis
(d) Allergic bronchopulmonary aspergillosis

2016

606. A 45 year old hypertensive male patient presented to the casualty with 3 hour history of sudden onset severe headache associated with nausea and vomiting. On clinical examination, patient had right sided ptosis and neck stiffness. Rest of the neurological examination was normal. The most likely diagnosis in this case is:
(a) Hypertensive brain damage
(b) Migraine
(c) Aneurysmal subarachnoid bleed
(d) Acute pyogenic meningitis

2016

607. Which one of the following is not a treatment of hepatic encephalopathy?

(a) Lactulose
(b) Rifaximin
(c) TIPS
(d) Electrolyte supplementation

2016

608. Features of intravascular haemolysis are the following except:
(a) Increased LDH
(b) Hemoglobinuria
(c) Increased serum indirect bilirubin
(d) Increased serum haptoglobin

2016

609. Consider the following statements:
1. Hypertrophic cardiomyopathy can lead to sudden cardiac death.
2. Dressler's syndrome is an early complication of acute myocardial infarction.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

2016

610. The common sites of hypertensive bleed are the following except:
(a) Basal ganglion
(b) Pons
(c) Cerebellum
(d) Frontal cortex

2016

611. Hypoglycaemia as an adverse side effect is most commonly seen during the treatment with:
(a) Dipeptidyl peptidase-IV inhibitors
(b) Metformin
(c) α-glucosidase inhibitors
(d) Sulfonylureas

2016

612. Which of the following statements is/are correct regarding Gilbert's syndrome?
1. Inheritance of the disease is autosomal dominant.
2. Jaundice becomes very severe with time.
3. Fasting leads to increased bilirubin levels.

Select the correct answer using the code given below:
(a) 1 and 3 only
(b) 1 only
(c) 2 and 3 only
(d) 1, 2 and 3

2016

613. The following are causes of secondary hypertension except:
(a) Conn's syndrome
(b) Carcinoid syndrome
(c) Cushing's syndrome
(d) Pheochromocytoma

2016

614. Tetrology of Fallot (Fallot's tetrology) is characterised by the following except:
(a) Ventricular septal defect
(b) Overriding aorta
(c) Pulmonary hypertension
(d) Right ventricular hypertrophy

2016

615. Regarding high altitude pulmonary oedema, the following statements are true except:
(a) It can be caused by physical exertion at high altitude
(b) It does not occur in a physically fit person
(c) It occurs due to leak in the alveolar capillary membrane
(d) Portable hyperbaric chamber may be used for the treatment instead of descent to a lower altitude

2016

616. Complications of myocardial infarction are all except:
(a) Systemic embolisation
(b) Rupture of interventricular septum
(c) Dissection of aorta
(d) Ventricular fibrillation

2016

617. Philadelphia chromosome can be detected by which of the following techniques?
1. FISH
2. PCR
3. Cytogenetics

Select the correct answer using the code given below:
(a) 1 only
(b) 1 and 3 only
(c) 2 and 3 only
(d) 1, 2 and 3

2016

Click Here to Buy book on Amazon

618. The following statements regarding celiac disease are correct except:
(a) Absence of gastrointestinal symptoms rules out celiac disease
(b) Malabsorption syndrome may be a presenting feature
(c) Duodenal biopsy shows increased intraepithelial lymphocytes
(d) Steroid therapy may induce remission

2016

619. Match List I with List II and select the correct answer using the code given below the lists:

	List I		List II
A.	Sodium valproate	1.	Raised liver enzymes
B.	Carbamazepine	2.	Drowsiness
C.	Phenytoin	3.	Hirsutism
D.	Phenobarbitone	4.	Hyperactivity

(a) A1 B4 C2 D3
(b) A1 B4 C3 D2
(c) A4 B1 C2 D3
(d) A4 B1 C3 D2

2016

620. The treatment of choice for Guillain-Barre syndrome is:
(a) Corticosteroids
(b) Intravenous immunoglobulins
(c) Cyclosporins
(d) ACTH

2016

621. The following statements in relation to right ventricular myocardial infarction are correct except:
(a) It may occur along with inferior wall myocardial infarction
(b) The ECG shows segment elevation in right precordial leads
(c) Prognosis in right ventricular infarction is worse than the left ventricular myocardial infarction
(d) The treatment includes intravenous diltiazem

2015

622. Atrial myxoma is associated with the following except:
(a) Fever
(b) Weight loss
(c) Systolic murmur at apex
(d) Subungual splinter haemorrhage

2015

623. Match List I with List II and select the correct answer using the code given below the lists:

	List I		List II
A.	Wide fixed split in the second heart sound hypertension	1.	Pulmonary hypertension
B.	Continuous machinery murmur	2.	Atrial septal defect
C.	Muffled heart sounds	3.	Patent ductus arteriosus
D.	Wide variable split in the second heart sound	4.	Pericardial effusion

(a) A-1 B-3 C-2 D-4
(b) A-2 B-3 C-4 D-1
(c) A-4 B-1 C-2 D-3
(d) A-3 B-1 C-2 D-4

2015

624. Match List I with List II and select the correct answer using the code given below the lists:

	List I		List II
A.	Amiodarone	1.	A-V Block, mobitz type II
B.	Adenosine	2.	Atrial fibrillation
C.	Digoxin	3.	Ventricular tachycardia
D.	Atropine	4.	Paroxysmal supraventricular tachycardia

(a) A-1 B-3 C-2 D-4
(b) A-1 B-4 C-2 D-3
(c) A-4 B-1 C-2 D-3
(d) A-3 B-4 C-2 D-1

2015

625. Which one of the following is not likely to be associated with pulmonary fibrosis?
(a) Coal miners' lung
(b) Primary biliary cirrhosis
(c) Asbestosis
(d) Ankylosing spondylitis

2015

NODIA

626. Which of the following is/are a feature/features of severity in immediate assessment of acute severe asthma?
1. Pulse rate >110 per min
2. Pulsus paradoxus
3. Unable to speak in sentences

Select the correct answer using the code given below:
(a) 1 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2015

627. Cavitating pulmonary lesions can be seen in the following except:
(a) Sarcoidosis
(b) Tuberculosis
(c) Carcinoma of lung
(d) Histoplasmosis

2015

628. Which of the auscultatory signs is absent in mitral stenosis in the presence of atrial fibrillation?
(a) Mid diastolic murmur
(b) Pre-systolic accentuation
(c) Variable first heart sound
(d) P_2 accentuation

2015

629. Which one of the following is not a feature of type 2 respiratory failure ?
(a) pCO_2 38 mmHg, and pO_2 50 mmHg
(b) pCO_2 68 mmHg, and pO_2 50 mmHg
(c) Papilloedema
(d) Asterixis

2015

630. Which of the following drugs is not given in dilated cardiomyopathy?
(a) Beta blocker
(b) Calcium channel blocker
(c) Spironolactone
(d) ACE inhibitors

2015

631. Which of the following features are related to Zollinger Ellison syndrome?
1. Aggressive and refractory peptic ulceration
2. Unregulated gastrin release
3. Beta islet cell tumour of pancreas
4. Diarrhoea present in upto 50% cases

Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 3 and 4
(c) 1, 2 and 3
(d) 1, 2 and 4

2015

632. In which of the following diseases, primary skin lesions are not seen?
(a) Leptospirosis
(b) SLE
(c) Hepatitis-B
(d) Infectious mononucleosis

2015

633. Which of the following is not a common feature of hypersensitivity pneumonitis?
(a) Raised C-Reaction Protein
(b) Chest X-ray may be normal
(c) Lung biopsy may be diagnostic
(d) Eosinophilia

2015

634. Consider the following statements with regard to duodenal ulcers:
1. They occur most often in the second part of duodenum.
2. Infection with H. pylori and NSAID–induced injury account for the majority of duodenal ulcers.
3. Malignant duodenal ulcers are extremely rare.
4. Eradication of H. pylori has greatly reduced the recurrence rates in duodenal ulcers.

Which of the above statements is/are correct?
(a) 1 and 3 only
(b) 2, 3 and 4 only
(c) 1, 2 and 4 only
(d) 1, 2, 3 and 4

2015

635. Carcinoid tumours commonly arise from:
(a) G. cells in pancreas
(b) Argentaffin cells of small intestine
(c) Pancreatic endocrine tumour
(d) Colon polyps

2015

636. The following may result in polyuria except:
(a) Chronic renal failure
(b) Hypoadrenalism
(c) Hypercalcaemia

Downloaded from www.pdf.tube

(d) Lithium carbonate therapy

2015

637. Regarding adult polycystic kidney disease, which one of the following statements is not correct?
(a) Inherited as autosomal dominant with 100% penetrance
(b) Often associated with hepatic cysts
(c) Associated with increased incidence of subarachnoid haemorrhage
(d) Renal cell carcinoma is a frequent association

2015

638. Which of the following is not a feature of chronic renal failure?
(a) Hyperparathyroidism
(b) Osteomalacia
(c) Hyperthyroidism
(d) Decreased 1, 25$(OH)_2$ vitamin D_3 level

2015

639. A patient with past history of recurrent headache, presents with irregular, dazzling, enlarging visual phenomena that obstructs vision in the affected region and remains for several minutes. The symptoms are indicative of:
(a) Acute angle closure glaucoma
(b) Retinal detachment
(c) Migraine
(d) Intumescent cataract

2015

640. Match List-I with List-II and select the correct answer using the code given below the lists:

	List-I		**List-II**
A.	Macrocytic anaemia	1.	Iron deficiency
B.	Microcytic anaemia	2.	Hypothyroidism
C.	Hemolytic anaemia	3.	Vitamin B_{12} deficiency
D.	Megaloblastic anaemia	4.	Alpha methyldopa

(a) A-1 B-3 C-2 D-4
(b) A-1 B-4 C-2 D-3
(c) A-2 B-1 C-4 D-3
(d) A-3 B-1 C-2 D-4

2015

641. Hemolysis in G6PD (glucose 6 phosphate dehydrogenase) enzyme deficiency may occur with all of the following drugs except:
(a) Primaquine
(b) Phenacetin
(c) Probenecid
(d) Penicillin

2015

642. Match List-I with List-II and select the correct answer using the code given below the lists:

	List-I		**List-II**
A	Microcytic, hypochromic red cells	1	Vitamin B_{12} deficiency anaemia
B	Macrocytic, hypochromic red cells	2	Thalassemia major
C	Large number of early, intermediate and late erythroblasts	3	Aplastic anaemia
D	Low reticulocyte count	4	Iron-deficiency anaemia

(a) A-1 B-3 C-2 D-4
(b) A-1 B-4 C-2 D-3
(c) A-4 B-1 C-2 D-3
(d) A-3 B-1 C-2 D-4

2015

643. Which of the following conditions does not cause pancytopenia?
(a) Hypersplenism
(b) Aplastic anaemia
(c) Cancer infiltrating the bone-marrow
(d) Hezmolysis from G6PD enzyme deficiency

2015

644. Which of the following drugs does not cause oedema?
(a) Growth hormone
(b) Beta blocker
(c) Anabolic steroids
(d) Calcium-channel blockers

2015

NODIA

645. An adult patient presents with systemic hypertension, renal calculus disease and peptic ulcer disease. Which one of the following is most likely occurrence in this case?
(a) Milk – alkali syndrome
(b) Hypervitaminosis – D

(c) Primary hyperparathyroidism
(d) Tubulo – interstitial renal disease

2015

646. Match List-I with List-II and select the correct answer using the code given below the lists:

	List-I		**List-II**
A.	Hyperchylo micronaemia	1.	Palmar plantar xanthoma
B.	Hyperbeta lipoproteinaemia	2.	Subcutaneous extensive tendon xanthoma
C.	Type III hyperlipo proteinaemia	3.	Eruptive xanthoma over buttocks
D.	Familial LPL deficiency	4.	Triglyceride level above 1000 mg%

(a) A-3, B-1, C-2, D-4
(b) A-3, B-2, C-1, D-4
(c) A-4, B-1, C-2, D-3
(d) A-4, B-2 C-1, D-3

2015

647. The following conditions can cause interstitial nephritis except:
(a) Infections
(b) Hepatorenal syndrome
(c) Lymphoma
(d) Sarcoidosis

2015

648. Which of the following immunological reactions occurs in Good pasture syndrome?
(a) Type I atopy
(b) Type II cytotoxic
(c) Type III immune complex
(d) Type IV cell mediation

2015

649. Following are the common features of Cushing's syndrome except:
(a) Truncal obesity
(b) Osteoporosis
(c) Distal myopathy
(d) Glucose intolerance

2015

650. Consider the following:
1. Psoriasis
2. Atopic dermatitis
3. Leprosy
4. Vitiligo

PUVA therapy can be used to treat which of the above?
(a) 1 and 2 only
(b) 2 and 3
(c) 1, 2 and 4
(d) 3 and 4

2015

651. The cutaneous viral infection which is commonly seen in children and characterized by single or multiple pearly-white skin colored smooth dome shaped papules with central pitting is:
(a) Chicken pox
(b) Herpes zoster
(c) Molluscum contagiosum
(d) Verruca vulgaris

2015

652. Consider the following statements regarding schizophrenia:
1. Patient feels that other persons put thoughts into his mind
2. Patient feels that he is being punished for his wrong doings
3. He may be in a state of catatonia

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2015

653. Lithium carbonate is employed in the following conditions except:
(a) To treat acute episodes of mania
(b) To prevent recurrence of mania
(c) To prevent depression in bipolar disorders
(d) To prevent depression in unipolar disorders

2015

654. The following conditions can cause protein-losing enteropathy except:
(a) Ulcerative colitis
(b) Irritable bowel syndrome
(c) Celiac disease
(d) Lymphoma

2015

Click Here to Buy book on Amazon

655. Which of the following ocular findings is a component of Foville syndrome?
(a) Lateral gaze palsy
(b) 6th N Palsy
(c) 3rd N Palsy
(d) Nystagmus

2015

656. The following features are suggestive of Behcet's syndrome except:
(a) Orogenital ulcers
(b) Polyarthritis
(c) Uveitis
(d) Livedo reticularis

2015

657. Match List-I with List-II and select the correct answer using the code given below the lists:

	List-I		**List-II**
A	Phenytoin sodium	1	Hypothyroidism
B	Para aminosalicylic acid	2	Hepatotoxicity
C	Rifampicin	3	8th nerve damage
D	Streptomycin	4	Cerebellar dysfunction

(a) A-4, B-1, C-2, D-3
(b) A-1, B-4, C-2, D-3
(c) A-3, B-4, C-2, D-1
(d) A-4, B-2, C-3, D-1

2015

658. Match List-I with List-II and select the correct answer using the code given below the lists:

	List-I		**List-II**
A	Pemphigus vulgaris	1	Acro–osteolysis
B	Psoriasis	2	Brachydactyly
C	Turner syndrome	3	Koebner phenomenon
D	Primary hyperparathyroidism	4	Nikolsky sign

(a) A-4, B-1, C-2, D-3
(b) A-1, B-4, C-2, D-3
(c) A-3, B-4, C-2, D-1
(d) A-4, B-3, C-2, D-1

2015

659. A 45 year old man presents with hematuria. Renal biopsy demonstrates a focal necrotizing glomerulitis with crescent formation. The patient gives history of intermittent hemoptysis and intermittent chest pain of moderate intensity. A previous chest X-ray had demonstrated multiple opacities, some of which were cavitated. The patient also has chronic cold like nasal symptoms. What is the most probable diagnosis?
(a) Aspergillosis
(b) Polyarteritis nodosa
(c) Renal carcinoma metastatic to lung
(d) Wegner's granulomatosis

2015

660. Congenital heart disease associated with pre-excitation is:
(a) Atrial septal defect
(b) Bicuspid aorta valve
(c) Ebstein's anomaly
(d) Patent ductus arteriosus

2015

661. Hockey-stick appearance in echo cardiography is a feature of:
(a) Mitral stenosis
(b) Mitral incompetence
(c) Aortic stenosis
(d) Aortic regurgitation

2015

662. Well recognised side-effects of prolonged phenytoin use may result in all except:
(a) Hirsutism
(b) Lymphadenopathy
(c) Ataxia
(d) Hypo glycaemia

2015

663. Level of which hormone is likely to increase after hypothalamic ablation?
(a) Growth hormone
(b) Prolactin
(c) FSH
(d) ACTH

2015

664. A 50 year old patient with signs of peripheral neuropathy is found to have diabetes mellitus. He has no ocular symptoms. When would you refer this patient for retina evaluation?
(a) When he develops ocular symptoms

Downloaded from www.pdf.tube

(b) Immediately
(c) If he needs insulin for blood sugar
(d) Five years after diagnosis

2015

665. The following tests can be used for diagnosing celiac disease except:
(a) Anti-gliadin antibodies
(b) Anti-nuclear antibodies
(c) Anti-endomycial antibodies
(d) Anti-tissue trans glutaminase antibodies

2015

666. Which one of the following is not an early complication of acute myocardial infarction?
(a) Papillary muscle dysfunction
(b) Ventricular septal defect
(c) Pericarditis
(d) Dressler's syndrome

2015

667. Consider the following conditions:
1. Thyrotoxicosis, pheochromocytoma and acromegaly
2. Hemochromatosis
3. Conn's syndrome (primary hyperaldosteronism)
4. Pancreatic carcinoma

Which of the above may result in secondary diabetes mellitus?
(a) 2 and 3 only
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 1, 2 and 3

2015

668. Lisch nodules are seen in which of the following conditions?
(a) von Recklinghausen's disease
(b) Louis-bar syndrome
(c) Tuberous sclerosis
(d) von Hippel-Lindau syndrome

2015

669. Match List I with List II and select the correct answer using the code given below the lists:

	List I		**List II**
A	Thalassemia major	1	Increased serum iron, decreased TIBC, increased serum ferritin
B	Iron deficiency anaemia	2	Decreased serum iron, increased TIBC, decreased serum ferritin
C	Nephrotic syndrome	3	Decreased serum iron, decreased TIBC, increased serum ferritin
D	Acute iron poisoning	4	Increased serum iron, normal TIBC, normal serum ferritin

(a) A-4, B-1, C-2, D-3
(b) A-1, B-2, C-2, D-3
(c) A-1, B-2, C-3, D-4
(d) A-4, B-3, C-2, D-1

2015

NODIA

670. Match List I with List II and select the correct answer using the code given below the lists:

	List I		**List II**
A	Hypothyroidism	1	Increased urinary excretion of catecholamines
B	Cushing's syndrome	2	Increased urinary 17-ketosteroids
C	Pheochromocytoma	3	Hypocalcaemia and hyperphosphataemia
D	Hypoparathyroidism	4	TSH levels are increased and T_3, T_4 levels are decreased

Code:
(a) A-4, B-2, C-1, D-3
(b) A-3, B-4, C-2, D-1
(c) A-3, B-4, C-1, D-2
(d) A-4, B-3, C-2, D-1

2015

671. Which of the following is not a clinical feature of Kwashiorkor?
(a) Bipedal oedema
(b) Visible severe wasting
(c) Low serum albumin
(d) Moon face

2015

672. Match List I with List II and select the correct answer using the code given below the lists:

	List I		List II
A	Flaky paint rashes of lower extremity	1	Niacin
B	Goose-hump skin lesion	2	Thiamine
C	Confabulation	3	Zinc
D	Dementia	4	Vitamin A

Code:
(a) A-1, B-2, C-4, D-3
(b) A-1, B-4, C-2, D-3
(c) A-3, B-4, C-2, D-1
(d) A-3, B-2, C-4, D-1

2015

673. With reference to 'DNA Microarray' technology, which of the following statements is/are correct?
1. It helps in identifying the genes involved in a disease by comparing the gene expressions between the tissues from a healthy and an infected person.
2. It allows visualizing the activity of hundreds of genes simultaneously.

Select the correct answer using the code given below:
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

2015

674. Artemisinin is a drug derived from a:
(a) Plant
(b) Fungus
(c) Rock
(d) Blue-green alga

2015

675. Gene silencing means a gene which would be expressed under normal circumstances is switched off by cell machinery. Which one of the following cellular components is not involved in gene silencing?
(a) Micro RNA
(b) Double stranded RNA
(c) Ribosomal RNA
(d) Si RNA

2015

676. A patient with small cell lung carcinoma has symptomatic hyponatremia (serum sodium 127 mmol/ L). The most likely etiology is:
(a) Fanconi Syndrome
(b) Cushing's Syndrome
(c) Metabolic Syndrome
(d) Syndrome of inappropriate ADH

2014

677. Regarding Gilbert's syndrome, which one of the following statements is not correct?
(a) Jaundice becomes severe with time.
(b) Hyperbilirubinemia increases after fasting.
(c) Inheritance of disease is autosomal dominant.
(d) Liver histology is normal.

2014

678. Which of the following is an uncommon cause of autonomic dysfunction?
(a) G B S (Guillain Barre Syndrome).
(b) Porphyria.
(c) Diabetic neuropathy.
(d) Neuropathy associated with Vitamin B12 deficiency.

2014

679. Peripheral Eosinophilia is not a characteristic feature of:
(a) Hypersensitivity pneumonitis.
(b) Allergic aspergillosis.
(c) Tropical eosinophilia.
(d) Loeffler's syndrome.

2014

680. With reference to psoriatic arthritis, which one of the following statements is not correct?
(a) In 70 – 80% patients psoriasis precedes arthritis.
(b) Distribution of arthritis is mainly asymmetrical.
(c) Involvement of PIP joints is more than DIP joints.
(d) Cup like erosions are seen on X ray.

2014

681. Consider the following statements regarding rheumatic heart disease:
1. Rheumatic carditis is a pancarditis.
2. Carey–Coombs murmur is a delayed systolic murmur heard during the course of acute rheumatic fever.

Click Here to Buy book on Amazon

3. Mitral regurgitation is the most common manifestation of acute rheumatic carditis.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 and 3
(c) 1 and 2
(d) 1 and 3

2014

682. The extra cellular fluid deficit in a comatose patient of diabetic ketoacidosis is replenished by:
(a) 0.9 % NaCl
(b) 3 % NaCl
(c) 5 % Dextrose
(d) Ringer's lactate

2014

683. Which one of the following is not associated with a high reticulocyte count?
(a) Acute bleed
(b) Haemolytic anaemia
(c) Megaloblastic anaemia
(d) Response to treatment in 'nutrition – deficiency' anaemia

2014

684. What happens when normal erythrocytes (blood – group matched) are transfused into a patient with anaemia secondary to an intracorpuscular defect?
(a) Donor cells are destroyed.
(b) Donor cells have normal survival.
(c) Depends on the severity of anaemia.
(d) Depends on whether the donor cells are fresh or stored (older than a week).

2014

685. Elevated serum alkaline phosphatase is seen in all except:
(a) Osteoporosis
(b) Osteomalacia
(c) Paget's disease of bone
(d) Cholestatic jaundice

2014

686. In a young epileptic woman wishing to use oral contraceptive agents, which of the following drugs is not an ideal agent?
(a) Carbamazepine
(b) Sodium valproate
(c) Topiramate
(d) Ethosuximide

2014

687. Which of the following is not true about alcoholic cirrhosis?
(a) On many occasions alcoholic hepatitis and alcoholic cirrhosis coexist.
(b) Concomitant HIV infection accelerates it.
(c) Starts with macronodular and later on changes to micronodular cirrhosis.
(d) 10 – 40 % remains clinically silent.

2014

688. Cardiac arrest may be due to all of the following except:
(a) Ventricular fibrillation
(b) Atrial fibrillation
(c) Acute myocardial infarction
(d) Pulmonary embolism

2014

689. Which of the following is not useful in the management of status epilepticus?
(a) Lorazepam
(b) Phenytoin
(c) Phenobarbitone
(d) Carbamazepine

2014

690. The following are indications for renal replacement in ARF except:
(a) Hyperkalemia
(b) Fluid overload
(c) Uraemic pericarditis
(d) Metabolic alkalosis

2014

691. Gastric erosions are likely to be associated with the following conditions except:
(a) Pernicious anaemia
(b) Cor pulmonale
(c) Polycythemia rubra vera
(d) Hepatic cirrhosis

2014

692. Wegener's granulomatosis is characterized by all of the following except:
(a) Vasculitis of respiratory tract
(b) Granulomatous uveitis
(c) Granulomatous hepatitis
(d) Glomerulonephritis

2014

NODIA

693. An 11 year old boy has elevated prothrombin and activated partial prothrombin time. What is the most likely defect?
(a) Defect in extrinsic pathway
(b) Defect in intrinsic pathway
(c) Defect in common pathway
(d) Defect in platelet function

2014

694. The radiological findings in chest X ray in sarcoidosis includes the following except:
(a) Bilateral symmetrical lymphadenopathy on chest X ray is commonly seen.
(b) Upper lobe involvement is more than that of lower lobe.
(c) Egg shell calcification is seen on X ray.
(d) Pleural effusion is a common finding.

2014

695. Which of the following is not a complication of peptic ulcer?
(a) Gastric outlet obstruction
(b) Perforation
(c) Indigestion
(d) Bleeding

2014

696. Match List I with List II and select the correct answer using the code given below the lists:

	List I		**List II**
A	Osler's node	1	Patent ductus arteriosus with reversal of shunt
B	Differential cyanosis	2	Aortic stenosis with aortic regurgitation
C	Bisferiens pulse	3	Pulmonary hypertension
D	Graham Steel murmur	4	Subacute bacterial endocarditis

(a) A-4 B-1 C-2 D-3
(b) A 4 B-1 C-3 D-2
(c) A-1 B-4 C-2 D-3
(d) A-1 B-4 C-3 D-2

2014

697. Consider the following:
1. Normal anion gap
2. Hyperchloremia acidosis
3. Inappropriately high urinary pH (>5.4)

Which of the above are the characteristic features of renal tubular acidosis (RTA)?
(a) 1, 2 and 3
(b) 1 and 2 only
(c) 2 and 3 only
(d) 1 and 3 only

2014

698. Which of the following are typical features of Parkinsonism?
1. Failure to swing the arms while walking
2. Nystagmus
3. Cogwheel rigidity
4. Festinating gait

Select the correct answer using the code given below.
(a) 2, 3 and 4
(b) 1, 2 and 4
(c) 1 and 3 only
(d) 1, 3 and 4

2014

699. Consider the following statements about acromegaly:
1. Fibroma molluscum and acanthosis nigricans are common findings.
2. Paradoxical growth hormone response to TRH administration is observed.
3. Acro-osteolysis is a common radiological finding.
4. Diabetes mellitus may be associated in nearly 25 % of acromegalics.

Which of these statements are correct?
(a) 1, 2 and 3
(b) 1, 3 and 4
(c) 1, 2 and 4
(d) 2, 3 and 4

2014

700. Of all the types of lupus nephritis, the worst outcome is seen in:
(a) Minimal mesangial
(b) Diffuse nephritis
(c) Focal segment nephritis
(d) Membranous nephritis

2014

701. Which of the following is not a cause of hypomagnesemia?
(a) Beta blockers
(b) Chronic Pancreatic insufficiency
(c) Poorly controlled diabetes mellitus
(d) Alcoholism

2014

Downloaded from www.pdf.tube

702. An elderly male presented with unilateral headache, fever and high ESR (110 mm). What is the most likely diagnosis?
(a) Tubercular meningitis
(b) Migraine
(c) Giant cell arteritis
(d) Space occupying lesions
2014

703. Which of the following is not a defect in calcium channels?
(a) Episodic ataxia – 2
(b) Spinocerebellar ataxia – 6
(c) Hyperkalemic periodic paralysis
(d) Hypokalemic periodic paralysis
2014

704. Which of the following is a loop diuretic?
(a) Ethacrynic acid
(b) Spironolactone
(c) Indopamide
(d) Thiazide
2014

705. The classical features of Wernicke's encephalopathy are the following except:
(a) Horizontal nystagmus
(b) Confusional state
(c) Ophthalmoplegia
(d) Extension plantar response
2014

706. Which one of the following is not seen in hepatorenal syndrome?
(a) Hypotension
(b) Acute renal failure
(c) Low urinary sodium
(d) Low serum potassium
2014

707. Common sites of involvement of Takayasu's arteritis are the following except:
(a) Subclavian artery
(b) Common carotid artery
(c) Abdominal aorta
(d) Pulmonary artery
2014

708. In which of the following is clubbing a common occurrence?
1. Infective endocarditis
2. Congestive cardiac failure
3. Pulmonary thromboembolism
4. Ebstein anomaly
Select the correct answer using the code given below:
(a) 1 only
(b) 1 and 2
(c) 2 and 3
(d) 1 and 4
2014

709. In carcinoid syndrome, the most common valvular lesion is:
(a) Mitral stenosis
(b) Mitral regurgitation
(c) Tricuspid regurgitation
(d) Pulmonary stenosis
2014

710. Na^+ is reabsorbed in which part/parts of kidney ?
1. Proximal convoluted tubule
2. Distal convoluted tubule
3. Thick ascending limb of loop of Henle
4. Collecting duct
Select the correct answer using the code given below:
(a) 1 only
(b) 1 and 3 only
(c) 2 and 4
(d) 1, 2 and 3
2014

NODIA

711. A 40 year old female presented with dysphagia and inability to open the mouth fully. The most likely diagnosis is:
(a) Systemic lupus erythematosus
(b) Systemic sclerosis
(c) Dermatomyositis
(d) Rheumatoid arthritis
2014

712. Which one of the following tests is best for measuring glomerular function?
(a) Blood urea
(b) Serum creatinine
(c) Creatinine clearance rate
(d) Ultrasound of kidney
2014

713. Optic chiasmal lesion commonly produces:
(a) Homonymous hemianopia
(b) Bitemporal hemianopia
(c) Uni–ocular vision loss
(d) Concentric field defect
2014

714. Adult hemoglobin consists of the following chains:
(a) $2\alpha + 2\beta$
(b) $2\alpha + 2\delta$
(c) $2\beta + 2\gamma$
(d) $2\alpha + 2\gamma$

2014

715. Consider the following statements regarding rheumatoid arthritis:
1. The synovial fluid looks cloudy.
2. Synovial fluid viscosity is reduced.
3. Synovial fluid complement levels are markedly decreased.
4. Lymphocytes predominate in the differential white blood cell count in the synovial fluid.

Which of the statements given above are correct?
(a) 1, 2 and 3
(b) 1, 3 and 4
(c) 1, 2 and 4
(d) 2, 3 and 4

2014

716. The following are true regarding Henoch Schonlein purpura except:
(a) 2/3rd cases are preceded by viral upper respiratory tract infection.
(b) Renal involvement is seen in around 40 % of cases.
(c) Small vessels are commonly affected.
(d) Purpura is seen all over the body especially the upper limbs.

2014

717. Which one of the following statements is not correct regarding cluster headache?
(a) Females are more commonly affected than males.
(b) Pain usually occurs in periodicity.
(c) Unilateral photophobia is essentially present.
(d) Autonomic features may be present.

2014

718. Maturity onset diabetes of the young (MODY) is inherited as:
(a) Autosomal dominant
(b) Autosomal recessive
(c) X linked dominant
(d) X linked recessive

2014

719. Ghon's complex is not characterized by:
(a) Hilar lymph nodes
(b) Pleural effusion
(c) Prominent draining lymphatics
(d) Subpleural focus

2014

720. Match list I with list II and select the correct answer using the code given below the lists:

	List I		**List II**
A	Red cell casts	1	Nephrotic syndrome
B	Microscopic haematuria	2	Chronic renal failure
C	Proteinuria	3	Polycystic kidney disease
D	Broad cell casts	4	Glomerulonephritis

Code:
(a) A-4 B-3 C-1 D-2
(b) A-3 B-2 C-1 D-4
(c) A-2 B-3 C-4 D-1
(d) A-4 B-1 C-2 D-3

2014

721. Which one of the following is not a feature of Guillain–Barre syndrome?
(a) Albumino–cytological dissociation
(b) Transient bladder disturbances
(c) Areflexia
(d) Babinski plantar response

2014

722. With reference to Marfan's syndrome, which one of the following is not correct?
(a) Lens of the eye is dislocated downward
(b) Aorta regurgitation is present in many patients
(c) There is Fibrillin 1 gene mutation
(d) Ratio of upper segment to lower segment is less than 1

2014

723. Tetany may be a feature of the following except:
(a) Hyperventilation
(b) Hypokalemic alkalosis
(c) Hypomagnesemia
(d) Hyponatremia

2014

724. Consider the following clinical features:
1. Impaired judgement
2. Impaired memory
3. Alteration of personality

Click Here to Buy book on Amazon

4. Clouding of consciousness

Which of the above are characteristics of dementia?

(a) 1 and 2 only
(b) 1, 2 and 3 only
(c) 3 and 4 only
(d) 1, 2, 3 and 4

2014

725. Koebner's phenomenon is seen in:
(a) Lupus vulgaris
(b) Lupus erythematosis
(c) Psoriasis
(d) Eczematous dermatitis

2014

726. Which one of the following is not an example of metabolic acidosis with high anion gap?
(a) Lactic acidosis
(b) Ketoacidosis
(c) Methanol poisoning
(d) Renal tubular acidosis

2014

727. Regarding management of Myxoedema coma, which of the following is not true?
(a) Treatment must begin after biochemical confirmation of the diagnosis
(b) Levothyroxine usually given by I/V route
(c) Rewarming of the patient
(d) Cautious use of intravenous fluids

2014

728. Which one of the following is the major determinant of plasma osmolality?
(a) Serum sodium
(b) Serum potassium
(c) Blood glucose
(d) Blood urea

2014

729. Acute aortic regurgitation occurs in:
(a) Infective endocarditis
(b) Ankylosing spondylitis
(c) Marfan's syndrome
(d) Rheumatoid arthritis

2014

730. A patient with cirrhosis develops oliguria and worsening azotemia. Urinary sediment is normal. Urinary sodium concentration is 5 meq/L. The most likely cause could be:
(a) Acute cortical necrosis
(b) Acute tubular necrosis
(c) Acute glomerulonephritis
(d) Hepatorenal syndrome

2014

731. Which of the following is the most reliable test for screening hemophilia?
(a) Prothrombin time
(b) Clotting time
(c) Partial thromboplastin time
(d) Clot retraction

2014

732. Beta-blocker therapy after acute myocardial infarction is contraindicated in which of the following conditions?
1. Heart failure
2. Orthostatic hypotension
3. Peptic ulcer disease
4. Bronchial asthma

Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 1, 2 and 4
(c) 1 and 4 only
(d) 2, 3 and 4

2013

733. A 34-year old non-diabetic, normotensive patient presents with acute severe retrosternal pain. The ECG shows ST elevation (≥ 3 mm) in anterior chest leads. Blood for CPK-MB, Tropin-T and AST are normal. A repeat ECG after 24 hours is normal. What is the likely diagnosis?
(a) Acute pericarditis
(b) Prinzmetal's angina
(c) Acute anterior myocardial infarction
(d) Acute non-myocardial infarction

2013

734. Which one of the following is characteristic of Opening Snap (on cardiac auscultation)?
(a) Low pitched, early diastolic
(b) High pitched, early diastolic
(c) High pitched, late diastolic
(d) Low pitched, late diastolic

2013

735. Sudden onset of cough followed by increased dyspnea is typical of
(a) Pneumothorax
(b) Lobar pneumonia
(c) Collapse of lung
(d) Acute pleurisy

NODIA

2013

736. Which of the following is the best determinant of adequacy of alveolar ventilation?
(a) Arterial pO_2 level
(b) Arterial pCO_2 level
(c) Minute ventilation
(d) Presence of cyanosis

2013

737. Very high serum transaminases (ALT/AST 1000 IU/L) are seen in the following conditions except
(a) Viral hepatitis
(b) Ischaemic liver injury
(c) Toxin-induced liver injury
(d) Alcoholic liver disease

2013

738. Necrotizing papillitis is a feature in all of the following conditions except
(a) Sickle cell disease
(b) Tuberculous pyelonephritis
(c) Diabetes mellitus
(d) Analgesic nephropathy

2013

739. The characteristic abnormality found in the urinalysis of a case of acute glomerulonephritis is
1. Granular casts
2. Red cell casts
3. Hyaline casts
4. WBC casts

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1 and 4
(c) 2 and 3 only
(d) 2 only

2013

740. Most common mutation in Alport's syndrome is in COL4A5 gene, which is transmitted as
(a) autosomal dominant
(b) autosomal recessive
(c) X-linked
(d) variable, autosomal dominant or autosomal recessive

2013

741. Broad casts in urinary sediments is specific for
(a) acute renal failure
(b) rapidly progressive renal failure
(c) chronic renal failure
(d) asymptomatic urinary abnormality

2013

742. Amaurosis fugax refers to transient ischaemic attack involving the region of
(a) retina
(b) internal capsule
(c) brain stem
(d) cerebral cortex

2013

743. The following systemic diseases are typically associated with polyneuropathy except
(a) Diabetes mellitus
(b) Hyperthyroidism
(c) Uraemia
(d) Carcinoma bladder

2013

NODIA

744. A young boy with history of left ear discharge develops fever, headache, vomiting and focal seizure of right upper limb. The appropriate line of management is
(a) urgent CT head and antibiotics
(b) urgent EEG and antibiotics
(c) urgent Otoscopy and antibiotics
(d) urgent CBC (complete blood counts) and antibiotics

2013

745. Which of the following blood disorders is not associated with a large spleen?
(a) Beta thalassemia
(b) Chronic myeloid leukaemia
(c) Hairy cell leukaemia
(d) Sickle cell anaemia

2013

746. Megaloblastic anaemia may be caused by the following drugs except
(a) Phenytoin
(b) Methotrexate
(c) Pyrimethamine
(d) Amoxycillin-Clavulinic acid (amoxyclav)

2013

747. Disseminated intravascular coagulation (DIC) is characterized by the following except
(a) widespread bleeding/thrombosis
(b) prolongation of prothrombin time/partial thromboplastin time
(c) high levels of fibrin degradation products
(d) high platelet count

2013

748. Which one of the following is not characteristic of Vitamin-D resistant rickets?
(a) X-linked inheritance
(b) Renal stones
(c) Reduced calcium absorption from the gut
(d) Hypophosphatemia

2013

749. As regards schizophrenia, which one of the following statements is not correct?
(a) Occurs in 0.5-0.8 per cent of general population
(b) Increasing parental age enhances the risk in the child
(c) If both parents are affected, the risk in their offsprings is above 90 per cent
(d) The illness may resemble severe and persistent neurosis

2013

750. Which one of the following is not a feature of Type-I renal tubular acidosis ?
(a) Lower tubule re-absorption of calcium
(b) Defective bicarbonate absorption in distal tubule
(c) Low serum potassium level
(d) Increased anion gap

2013

751. Which one of the following is not a feature of Adult Polycystic Kidney Disease ?
(a) Hypertension
(b) Intermittent renal colic
(c) Massive proteinuria
(d) Macroscopic haematuria

2013

752. Pulmonary complications of rheumatoid arthritis include the following except
(a) Pulmonary nodules
(b) Mesothelioma
(c) Fibrosing alveolitis
(d) Pleural effusion

2013

753. In a right-handed person, which of the following signs is not a characteristic feature of occlusion in the right middle cerebral artery ?
(a) Left hemiplegia with left UMN VII cranial nerve palsy
(b) Left hemiplegia with aphasia
(c) Left hemiplegia with right anosognosia
(d) Left hemiplegia with left hemi-anaesthesia

2013

754. Metoclopramide suppresses which of the following neurotransmitters in vomiting ?
(a) Dopamine
(b) Serotonin 5-HT4
(c) Histamine
(d) Acetylcholine

2013

755. The amyloid protein in primary systemic amyloidosis belongs to which of the following classes of fibril proteins ?
(a) AA protein
(b) AL protein
(c) Aβ protein precursor
(d) β2 microglobulin protein

2013

756. Match List I with List II and select the correct answer using the code given below the Lists :

	List I		**List II**
A	$\alpha_2 \beta_2$	1	Hb A_2
B	$\alpha_2 \gamma_2$	2	Hb A
C	$\alpha_2 \delta_2$	3	Hb F
D	$\beta_2 \beta_2$	4	Hb H

Code :
(a) A-3 B-1 C-2 D-1
(b) A-4 B-1 C-2 D-3
(c) A-2 B-1 C-3 D-4
(d) A-2 B-3 C-1 D-4

2013

757. Which one of the following is not a common feature of cystic fibrosis ?
(a) Exocrine pancreatic insufficiency
(b) Azoospermia
(c) Distal gastrointestinal obstruction
(d) Polyneuropathy

2013

758. A 60-year old male suffering from auditory hallucinations says that people staying upstairs were talking about him and conspiring against him. He filed a police complaint against them but the allegations were proved to be wrong. The most likely diagnosis is
(a) depression
(b) dementia
(c) delusional disorder
(d) schizophrenia

2013

Downloaded from www.pdf.tube

759. Each of the following is true about the idiopathic primary pulmonary hypertension except
(a) it is usually associated with coronary artery disease
(b) it is more common in females
(c) it is usually asymptomatic to begin with
(d) it is characterized by autosomal dominant inheritance

2013

760. Which one of the following is not correct about Wilson's disease ?
(a) It is an autosomal recessive disorder
(b) Serum ceruloplasmin is low
(c) There is hepatomegalic degeneration
(d) Serum copper concentration is high

2013

761. Which one of the following is not an aetiology of transudative pleural effusion ?
(a) Mesothelioma
(b) Congestive heart failure
(c) Cirrhosis
(d) Nephrotic syndrome

2013

762. With reference to secondary tumours of the lung, which one of the following is not correct ?
(a) Diagnosis is made from radiological examination
(b) Endobronchial deposits are common
(c) These are usually multiple and bilateral
(d) Quite often, there are no respiratory symptoms

2013

763. A patient is being investigated for chronic diarrhoea. Small intestinal mucosal biopsy shows PAS positive foamy macrophages. The diagnosis is probably
(a) chronic amoebiasis
(b) chronic giardiasis
(c) Whipple's disease
(d) intestinal sarcoidosis

2013

764. Consider the following modalities of treatment :
1. Ballon dilatation
2. Heller's operation
3. Local injection of botulinum toxin
Which of the above is/are the treatment modalities for achalasia cardia ?
(a) 1 only
(b) 1 and 2 only
(c) 2 and 3 only
(d) 1, 2 and 3

2013

765. Match List I with List II and select the correct answer using the code given below the Lists:

	List I		**List II**
A	Lepra reaction	1	Koebner's phenomenon
B	Herpes zoster	2	Erythema nodosum
C	Psoriasis	3	Nikolosky's sign
D	Pemphigus vulgaris	4	Chickenpox virus

Code :
(a) A-1 B-4 C-3 D-2
(b) A-1 B-4 C-3 D-1
(c) A-3 B-4 C-1 D-2
(d) A-2 B-4 C-1 D-3

2013

766. In moderate severity obstructive lung disease, the expected abnormalities include the following except
(a) ↑ Residual capacity
(b) ↓ Vital capacity
(c) ↓ FRC/TLC ratio
(d) $FEV_1/FVC < 70\%$

2013

767. Aortic regurgitation is characterized by
1. Wide pulse pressure
2. Angina pectoris
3. Early diastolic murmur
4. Loud 1st heart sound
Select the correct answer using the code given below :
(a) 1, 2 and 3
(b) 2, 3 and 4
(c) 1, 2 and 4
(d) 1, 3 and 4

2013

768. Consider the following statements regarding Austin Flint murmur :
1. It is heard in severe aortic regurgitation
2. It is produced at the anterior mitral leaflet by the regurgitant blood during diastole
3. It is an evidence of associated mitral stenosis

NODIA

4. It is heard in aneurysmal dilatation of the ascending aorta

Which of the statements given above are correct ?

(a) 1, 2 and 3
(b) 2, 3 and 4
(c) 1, 3 and 4
(d) 1 and 2 only

2013

769. Two or more oligoclonal bands in cerebrospinal fluid are most often positive in

(a) acute bacterial meningitis
(b) multiple sclerosis
(c) subarachnoid haemorrhage
(d) polyneuropathy

2013

770. A 30-year old male presented with fever, dry cough and weight loss of 6 months duration. The chest X-ray shows miliary pattern. The differential diagnosis includes all the following except

(a) tuberculosis
(b) Wegener's granulomatosis
(c) fungal infection
(d) sarcoidosis

2013

771. Consider the following statements regarding a healthy adult :

1. Mean left atrial pressure is 12-20 mm Hg
2. Left ventricular end diastolic volume is between 70-100 ml/m^2
3. Pulmonary vascular resistance is 20-120 dynes sec cm^{-5}
4. Left ventricular ejection fraction at rest is 0.55 to 0.80

Which of the statements given above are correct ?

(a) 1, 2 and 3
(b) 2, 3 and 4
(c) 1, 3 and 4
(d) 1, 2 and 4

2013

772. In acute hypoxaemic respiratory failure, which of the following statements is correct regarding arterial blood gas analysis ?

(a) PaO_2 is decreased and $PaCO_2$ is either normal or low
(b) PaO_2 is decreased and $PaCO_2$ is high
(c) Both PaO_2 and $PaCO_2$ levels are markedly reduced
(d) PaO_2 is normal and $PaCO_2$ is high

2013

773. Match List I with List II and select the correct answer using the code given below the Lists :

	List I		**List II**
A	Hypothyroidism	1	Prolonged P-R interval
B	Rheumatic carditis	2	Pin point pupils
C	Subarachnoid haemorrhage	3	Subhyaloid haemorrhage
D	Morphine poisoning	4	Hung-up reflex

Code :

(a) A-4 B-3 C-2 D-1
(b) A-2 B-4 C-3 D-1
(c) A-1 B-2 C-3 D-4
(d) A-4 B-1 C-3 D-2

2013

774. Each of the following is a sign of impaired ventricular function except

(a) raised JVP
(b) narrow pulse pressure
(c) end-inspiratory lung crepitations
(d) tapping apical impulse

2013

775. Pseudotumour cerebri is characterized by all of the following except

(a) increase in intracranial tension
(b) blurred vision and diplopia
(c) focal neurological signs
(d) self-limiting condition

2013

776. Vitamin K-dependent clotting factors include all the following except

(a) Factor II
(b) Factor VIII
(c) Factor IX
(d) Factor X

2013

777. Which of the following cells in peripheral blood smear are necessarily increased in all haemolytic anaemias?

(a) Sickle cells

Click Here to Buy book on Amazon

(b) Target cells
(c) Burr cells
(d) Reticulocyte cells

2013

778. Which of the following is not a naturally occurring anticoagulant in the body?
(a) Protein C
(b) Protein S
(c) Antithrombin III
(d) Von Willebrand Factor

2013

779. Which of the following inborn errors of metabolism can give rise to thromboembolic manifestation in a child?
(a) Phenylketonuria
(b) Homocystinuria
(c) Galactosaemia
(d) Gaucher's disease

2013

780. Hyperkalaemia can occur in all the following except
(a) Cushing's syndrome
(b) Crush injuries
(c) Renal failure
(d) Intravascular haemolysis

2013

781. Roth's spots are found in
(a) Acute rheumatic fever
(b) Congestive cardiac failure
(c) Infective endocarditis
(d) Restrictive cardiomyopathy

2012

782. A 42-year-old smoker has developed an acute anterior wall myocardial infarction. The coronary angiogram done on him is likely to show an obstruction of the
(a) Left anterior descending artery
(b) Left posterior descending artery
(c) Right coronary artery
(d) Circumflex artery

2012

783. The criteria for carrying out a mitral valvuloplasty include the following except
(a) Significant symptoms
(b) Isolated mitral stenosis
(c) Mobile non-calcified valve
(d) Left atrial thrombus

2012

NODIA

784. 'Cannon' a wave is seen in
(a) Complete heart block
(b) Left ventricular hypertrophy
(c) Mitral stenosis
(d) Right ventricular hypertrophy

2012

785. Match List I with List II and select the correct answer using the code given below the Lists :

	List I		List II
A	Parkinsonism	1	Riluzole
B	Migraine	2	Levodopa
C	Motor Neuron Disease	3	Ergotamine
D	Multiple sclerosis	4	Interferon-β1a

Code :
(a) A-1 B-3 C-2 D-4
(b) A-1 B-4 C-2 D-3
(c) A-4 B-1 C-2 D-3
(d) A-2 B-3 C-1 D-4

2012

786. On an E.C.G. tracing, the presence of right atrial hypertrophy is suggested by-
(a) Tall spiky P wave
(b) Widened P wave
(c) Prolonged P-R interval
(d) Increased P-Q segment

2012

787. Which one of the following is not raised in intravascular hemolysis ?
(a) Bilirubin
(b) LDH
(c) Reticulocyte count
(d) Haptoglobin

2012

788. Which one of the following is not correct regarding Left Bundle Branch Block (LBBB) ?
(a) Coronary artery disease can be one of the possible aetiologies of LBBB
(b) ST segment elevation is an integral part of LBBB
(c) QRS complex is prolonged in LBBB
(d) Cardiomyopathy is another possible aetiology of LBBB

2012

789. All of the following are excitatory neurotransmitters except

(a) Gamma Amino Butyric Acid
(b) Acetylcholine
(c) Dopamine
(d) Serotonin

2012

790. Which one of the following is not a useful drug for the initial management of a case with status epilepticus ?
(a) IV phenytoin
(b) IV clobazam
(c) IV thiopental
(d) IV sodium valproate

2012

791. Massive splenomegaly is not a feature of
(a) Acute lymphocytic leukaemia
(b) Chronic myeloid leukaemia
(c) Myelofibrosis with myeloid metaplasia
(d) Hairy Cell leukaemia

2012

792. Which of the following is not a correct combination between a brain area and its function ?
(a) Limbic network : Retentive memory
(b) Frontoparietal network : Face and object recognition
(c) Perisylvian network : Language
(d) Prefrontal network : Attention and behaviour

2012

793. Match List I with List II and select the correct answer using the code given below the Lists :

	List I		**List II**
A	'y' descent	1	Emptying of the blood from right atrium into right ventricle
B	'x' descent	2	Atrial relaxation
C	'v' wave	3	Filling of the right atrium from the vena cava
D	'a' wave	4	Onset of atrial systole

Code :
(a) A-1 B-3 C-2 D-4
(b) A-1 B-4 C-2 D-3
(c) A-4 B-1 C-2 D-3
(d) A-1 B-2 C-3 D-4

2012

794. An 80-year-old man presents with breathlessness which wakes him up from sleep. His pulse is 90/min and BP is 100/60 mmHg. The examination reveals pedal oedema and basal rales in both lungs. He has dyspnoea on exertion and he has an off and on history of chest pain for the last many years. He has a soft systolic murmur at the apex. This patient may benefit from all of the following except
(a) Furosemide
(b) ACE inhibitor
(c) Beta blocker
(d) Calcium channel blocker

2012

795. 'Fleeting pulmonary infiltrates' on sequential chest skiagrams in an individual who suffers from asthma are characteristics of
(a) Allergic bronchopulmonary aspergillosis
(b) M. tuberculosis infection
(c) Pneumocystis jirovecii pneumonia
(d) Nocardia infection

2012

796. A young patient presenting with massive hematomyelis was found to have splenomegaly. The most likely source of bleeding is
(a) Duodenal ulcer
(b) Oesophageal varices
(c) Erosive mucosal disease
(d) Gastric ulcer

2012

797. Sensory neuropathy is not a characteristic feature of
(a) Lead poisoning
(b) Diabetes mellitus
(c) Beri-beri
(d) Chronic alcoholism

2012

798. The following are features of distal renal tubular acidosis except
(a) Low serum potassium
(b) Low serum chloride
(c) Non-anion-gap acidosis
(d) High urinary ammonium

2012

799. Wide fixed splitting of the second heart sound is typical of
(a) Atrial septal defect
(b) Ventricular septal defect

Downloaded from www.pdf.tube

(c) Patent ductus arteriosus
(d) Coarctation of aorta

2012

800. A 10-month-old girl presents with extensive pruritis over the face and lichenification and creases below the eyes. She has a family history of asthma and allergic rhinitis. The most likely diagnosis is
(a) Atopic dermatitis
(b) Allergic contact dermatitis
(c) Seborrhoeic dermatitis
(d) Neurodermatitis.

2012

801. Consider the following :
A 20-year-old dark man has hypopigmented macules over the chest, trunk and back. The KOH examination shows 'spaghetti and meatball' appearance. Which of the following drugs will be appropriate in the oral treatment of this condition ?
1. Terbinafine
2. Griseofulvin
3. Itraconazole
4. Ketoconazole

Select the correct answer using the code given below :
(a) 1 and 2
(b) 2 and 3
(c) 1 and 4
(d) 3 and 4

2012

802. Beta-blockers are not recommended for diabetic patients who are on insulin because
(a) They reduce the efficiency of insulin
(b) They mask the symptoms of hypo glycaemia
(c) They produce dermatitis herpetiform is
(d) They produce congestive heart failure

2012

803. The important physiological function of bile acids is
(a) They facilitate the absorption of dietary fats
(b) They conjugate with toxic substances, and thus facilitate their excretion
(c) They facilitate the excretion of breakdown products of haemoglobin
(d) They facilitate the absorption of vitamin B12

2012

804. A 60-year-old male hypertensive had a stroke two weeks prior to this sudden attack of dyspnoea. The present ECG shows changes of S1 Q3 T3 and the V/Q pulmonary scan shows major areas of reduced perfusion. What is the probable diagnosis ?
(a) Pneumothorax
(b) Congestive cardiac failure
(c) Pulmonary thromboembolism
(d) Psychogenic dysfunction

2012

805. Which of the following is not an inborn error of metabolism ?
(a) Thalassaemia
(b) Wilson's disease
(c) Phenylketonuria
(d) Galactosaemia

2012

806. Which of the following is the common side effect of isoniazid ?
(a) Diarrhoea
(b) Hypertrophy
(c) Peripheral neuritis
(d) Acute tubular necrosis

2012

807. Which of the following statements is not true regarding hemolytic uraemic syndrome ?
(a) It is a microangiopathic hemolytic anaemia
(b) Thrombocytopenia and schistosities are seen in the peripheral blood smear
(c) Renal insufficiency is a complication
(d) Direct Coombs' test is positive

2012

NODIA

808. A 35-year-old nondiabetic, nonhypertensive individual presents to casualty with a sudden bursting headache and altered sensorium. What is the most likely diagnosis ?
(a) Meningitis
(b) Encephalitis
(c) Intracerebral hemorrhage
(d) Intracranial tumour

2012

809. The drug used for the treatment of Familial Mediterranean Fever is
(a) Iododuxorubicin
(b) Doxycycline
(c) Colchicine
(d) Hydroxy chloroquine

2012

810. A patient presents to the casualty with the history of chest pain and hypotension. The ECG reveals changes of hyperacute inferior wall myocardial infarction. What other cardiac condition would you like to exclude with this myocardial infarction ?
(a) Right ventricular infarction
(b) Lateral wall infarction
(c) Hypersensitive carotid sinus
(d) Septum secundum atrial septal defect

2012

811. The following conditions cause non-scarring alopecia except
(a) Alopecia areata
(b) Tinea capitis
(c) Secondary syphilis
(d) Sarcoidosis

2012

812. Which of the following toxicity is specific to anthracyclines therapy ?
(a) Cardiac muscle damage
(b) Peripheral neuropathy
(c) Haemorrhagic cystitis
(d) Renal damage

2012

813. A particularly chronic low-grade long lasting depression is known as
(a) Unipolar depression
(b) Bipolar depression
(c) Dysthymia
(d) Major depressive disorder

2012

814. Consider the following :
1. Carcinoma of the stomach
2. Obesity
3. Insulin resistance
4. Haemochromatosis

Which of the above is/are associated with acanthosis nigricans ?
(a) 1 only
(b) 4 only
(c) 1, 2 and 3
(d) 2, 3 and 4

2012

815. Reiter's syndrome is constituted by the following except
(a) Seronegative arthritis
(b) Non-specific urethritis
(c) Conjunctivitis
(d) Lymphadenitis

2012

816. The presence of 'swan-neck' deformity, 'buttonhole' deformity, 'Z' deformity of the thumb and 'Baker's cysts' suggest which of the following?
(a) Reiter's syndrome
(b) Gouty arthritis
(c) Psoriatic arthritis
(d) Rheumatoid arthritis

2012

817. Regarding rheumatoid arthritis, the following statements are true except
(a) The cricoarytenoid joint may be involved
(b) HLA-D4 and HLA-DR4 are positive in patients with seropositive rheumatoid arthritis
(c) Subcutaneous nodules are more frequent in seronegative patients
(d) Diffuse intestinal fibrosis and pneumonitis may occur

2012

818. Which of the following medical conditions does not mimic an anxiety disorder state?
(a) Hypothyroidism
(b) Pheochromocytoma
(c) Hypo glycaemia
(d) Alcohol withdrawal

2012

819. Each of the following is a hallmark of celiac sprue except
(a) It is a gluten-sensitive enteropathy
(b) It may get complicated by lymphoma
(c) It is diagnosed on the basis of a small-intestinal biopsy
(d) It may be associated with diabetes insipidus

2012

820. Consider the following statements regarding mitral stenosis (MS) :
1. In isolated MS, the left ventricular diastolic pressure is normal.
2. In most patients with moderate MS, the cardiac output is normal or almost so at rest.
3. Severe pulmonary hypertension results in tricuspid regurgitation.

Click Here to Buy book on Amazon

4. Left ventricular ejection fraction is markedly reduced.

Which of the statements given above is/are correct ?
(a) 1, 2 and 4
(b) 1, 2 and 3
(c) 3 and 4 only
(d) 1, 3 and 4

2012

821. A patient presents with shortness of breath. On clinical examination, he is found to have a heaving apex and a systolic murmur that intensifies on Valsalva's manoeuvre. The most likely diagnosis is
(a) Valvular aortic stenosis
(b) Ventricular septal defect
(c) Hypertrophic cardiomyopathy
(d) Atrial septal defect

2012

822. Which one of the following treatments is effective in primary biliary cirrhosis ?
(a) Prednisolone
(b) Interferon α-2B
(c) D-Penicillamine
(d) Ursodeoxycholic acid

2012

823. Which of the following is characterised by an increase in osmotic fragility of red cells ?
(a) Thalassaemia major
(b) Iron deficiency anaemia
(c) Hereditary spherocytosis
(d) Pyridoxine deficiency

2012

824. The severity of mitral stenosis is assessed by
(a) Character of murmur
(b) Splitting of S_2
(c) Loudness of S_1
(d) S_2–O_s interval

2012

825. Which of the following investigations would be diagnostic of Cystic fibrosis?
(a) Deficiency of the enzyme mucinase
(b) High sweat chloride content
(c) Alpha-1 aldolase deficiency
(d) Increased copper excretion in urine

2012

826. A 38-year-old man presents with chest pain and shortness of breath. His pulse rate is 85/min, blood pressure is 180/118 mmHg and the cardiac auscultation reveals an ejection systolic murmur. The ECG shows LVH pattern and ST depression in the anterior leads. His Troponin T test is positive. The echocardiogram of the person is likely to reveal
(a) Aortic regurgitation
(b) Aortic stenosis
(c) Mitral regurgitation
(d) Mitral valve prolapse

2011

827. A young woman in the mid-20s with abnormally low body weight reports binge eating and purging 5 – 10 times a week for the last several years. She has intense fear of becoming fat and has a feeling that she is fat despite an objectively low weight. She has also developed amenorrhoea. What is the most appropriate diagnosis?
(a) Anorexia nervosa
(b) Bulimia nervosa
(c) Endogenous depression
(d) Schizophrenia

2011

828. A patient is admitted with severe diarrhoea and vomiting. On examination, he is hypotensive and dehydrated. His haemoglobin is 19 gm%. The most likely reason for raised haemoglobin is
(a) Relative polycythaemia
(b) Secondary polycythaemia
(c) Polycythaemia vera
(d) Essential thrombocythaemia

2011

829. Consider the following statements :
During an acute attack of asthma :
1. Pulsus paradoxus develops when the FEV_1 is less than 25 per cent of the predicted value.
2. A normal to increased $PaCO_2$ signals a severe airway obstruction and impending respiratory failure.
3. The arterial $PaCO_2$ decreases and the arterial pH increases.
4. The presence of cyanosis is a reliable prognostic sign.

Which of the statements given above are correct ?
(a) 1, 2 and 3
(b) 2, 3 and 4
(c) 1, 3 and 4

Downloaded from www.pdf.tube

(d) 1, 2 and 4

2011

830. A 30-year-old man presents with fever and progressively increasing breathlessness since the last two weeks. His clinical examination reveals : pulse 120/min regular, BP 100/60 mmHg, and muffled S_1 and S_2 heart sounds. The distended jugular vein has a rapid X descent, with an absent Y descent. What is the probable diagnosis ?
(a) Right ventricular failure
(b) Constrictive pericarditis
(c) Cardiac tamponade
(d) Left ventricular failure

2011

831. A 45-year-old male has rhinitis, bronchial asthma, eosinophilia and systemic vasculitis. What is the probable diagnosis ?
(a) Goodpasture's syndrome
(b) Cryptogenic fibrosing alveolitis
(c) Churg-Strauss syndrome
(d) Sarcoidosis

2011

832. The presence of multiple cavities in the lung with haematuria is suggestive of
(a) Wegener's granulomatosis
(b) Tuberculosis
(c) Renal cell carcinoma
(d) SLE

2011

833. Zollinger-Ellison syndrome is characterised by the following except :
(a) Profound gastric hypersecretion
(b) Large diarrhoea with occasional steatorrhoea
(c) Hypocalcaemia
(d) Hypercholesteremia

2011

834. The presence of the Kayser-Fleischer ring in cornea is diagnostic of
(a) Alcoholic cirrhosis
(b) Primary biliary cirrhosis
(c) Wilson's disease
(d) Crigler-Najjar syndrome

2011

835. A 30-year-old woman complains of suprasternal dysphagia only for solids. She also has a long-standing untreated menorrhagia leading to iron deficiency anaemia. What is the most probable cause for her dysphagia ?
(a) Pharyngeal pouch
(b) Carcinoma oesophagus
(c) Dysphagia lusoria
(d) Patterson-Kelly syndrome

2011

836. Isolated conjugated hyperbilirubinemia is seen in the following conditions except :
(a) Hemolysis
(b) Gilbert's syndrome
(c) Crigler-Najjar syndrome
(d) Dubin-Johnson syndrome

2011

837. The most accurate measure of Glomerular Filtration Rate (GFR) can be obtained by
(a) Creatinine clearance
(b) Calculated urea clearance
(c) Simultaneous determination of creatinine and urea clearance
(d) Radioisotope ^{125}I-iothalamate clearance

2011

838. The following drugs can cause Acute Interstitial Nephritis except :
(a) NSAIDs (Non Steroidal Anti-Inflammatory Drugs)
(b) Prednisolone
(c) Allopurinol
(d) Penicillamine

2011

839. Which one of the following is not a feature of renal artery stenosis ?
(a) Hypertension responds well to drugs
(b) Kidneys may be asymmetrical
(c) Atherosclerotic plaques are common
(d) Serum creatinine may increase with ACE inhibitors

2011

840. Consider the following statements regarding membranous nephropathy :
1. Idiopathic membranous nephropathy has strong association with HLA – DRw3.
2. Microscopic haematuria is commonly detected in 60% of patients.
3. Hypertension is a common association.
4. Renal vein thrombosis may occur in nearly 50% of patients.

NODIA

Which of the statements given above are correct ?
(a) 1, 2 and 3
(b) 1, 3 and 4
(c) 1, 2 and 4
(d) 2, 3 and 4

2011

841. The following can lead to acute renal failure due to intrinsic renal disease except :
(a) Systemic lupus erythematosus
(b) Leptospirosis
(c) Hepatorenal syndrome
(d) Hemolytic uraemic syndrome

2011

842. Restless legs syndrome in chronic renal failure may respond to
(a) Quinine
(b) Clonazepam
(c) Vitamin E
(d) Vitamin D

2011

843. Consider the following categories of patients :
1. Young woman
2. Pregnant woman
3. Elderly woman
4. Post-renal transplant woman

Which of the above warrant active treatment for asymptomatic bacteriuria ?
(a) 1 and 2
(b) 3 and 4
(c) 1 and 3
(d) 2 and 4

2011

844. Consider the following :
1. Diabetes mellitus and thallium poisoning
2. Guillain-Barré syndrome and Amyloidosis
3. Porphyria and Diabetes mellitus
4. Steele-Richardson-Olszewski syndrome and Amyotrophic lateral sclerosis

Autonomic dysfunction is a feature in which of the above ?
(a) 1 and 3 only
(b) 2 and 3 only
(c) 1, 3 and 4
(d) 1, 2, 3 and 4

2011

845. A 56-year-old diabetic male patient who underwent a CABG for triple vessel disease is brought to the emergency with sudden-onset inability to speak since the last two hours. He can understand what is being said to him but cannot speak. His BP is 200/110 mmHg. The emergency CT scan of the head is normal. The next step in the management would be
(a) Wait and watch
(b) Administer intravenous tPA
(c) Control blood pressure
(d) Administer a tablet of baby aspirin

2011

846. A 37-year-old woman presents to her physician with the complaint of difficulty in reading and fatigue. She reports having had pins and needles feeling in her left arm several months ago that resolved without treatment. On examination, she has visual field deficits and mild hyperreflexia. The MRI examination confirms the suspected diagnosis. Which of the following is the underlying mechanism responsible for the patient's disease ?
(a) Antibodies to acetylcholine receptors
(b) Axonal degeneration
(c) Demyelination of neurons
(d) Posterior column degeneration

2011

847. The following are the myeloproliferative disorders except :
(a) Polycythemia vera
(b) Essential thrombocytosis
(c) Chronic myeloid leukaemia
(d) Hairy cell leukaemia

2011

848. An orally active anticoagulant under development with an advantage of not requiring the monitoring of anticoagulant effect is
(a) Fondaparinux
(b) Ximelagatran
(c) Snake venom derivative
(d) Ancrod

2011

849. Which of the following is not true about hereditary spherocytosis ?
(a) Splenomegaly
(b) Increased RBC life span
(c) Pigment gall stones
(d) Effective splenectomy

2011

Click Here to Buy book on Amazon

850. In a patient of anaemia, the most convenient test for assessment of iron status is
(a) Transferrin
(b) Serum iron
(c) Haemoglobin
(d) Serum ferritin

2011

851. The parents of a 13-month-old boy are contacted by a local social agency because the day care reported them for suspected child abuse based on too many bruises. The parents deny the abuse and promptly arrange to have their child seen by a medical specialist. The child has multiple large bruises on his legs, anus, and buttocks. No skin abrasions and no pattern marks are seen. PTT is prolonged and PT and bleeding time are normal. Which of the following is the most probable diagnosis?
(a) Acute myelogenous leukaemia
(b) Disseminated intravascular coagulation
(c) Vitamin K deficiency
(d) Von Willebrand disease

2011

852. Which one of the following is HLA associated Diabetes mellitus ?
(a) Type I Diabetes mellitus
(b) Type II Diabetes mellitus
(c) Stress related Diabetes mellitus
(d) Gestational Diabetes mellitus

2011

853. A 65-year-old woman with history of Type 2 Diabetes mellitus for the last eight years dies in a hospital. She had no other significant medical history. Which of the following is the most likely cause of her death ?
(a) Diabetic ketoacidosis
(b) Myocardial infarction
(c) Renal failure
(d) Stroke

2011

854. Gynaecomastia may occur in the following conditions except :
(a) Physiologic response to puberty
(b) Primary hypogonadism
(c) Primary aldosteronism
(d) Choriocarcinoma testis

2011

855. A 75-year-old lady is diagnosed of having a thyroid malignancy. Her serum calcium is low. What is the most likely explanation ?
(a) She has developed metastasis to the parathyroid
(b) She has Follicular carcinoma
(c) She has Papillary carcinoma
(d) She has Medullary carcinoma

2011

856. A 25-year-old hypertensive man with a history of recurrent calcium-containing renal calculi presents to the emergency department with excruciating flank pain and blood in the urine. This patient is likely to have which one of the following underlying disorders ?
(a) Chronic proteus infection
(b) Factor VIII deficiency
(c) Hyperaldosteronism
(d) Hyperparathyroidism

2011

857. A 26-year-old woman presents with scanty menstrual bleeding and milk secretion from the breasts. On examination, she has galactorrhea and dry skin. A lateral skull radiograph shows enlargement of the sella. The test that will be most helpful in the diagnosis is
(a) Serum prolactin level
(b) Serum ACTH level
(c) Serum ADH level
(d) Serum TSH level

2011

858. Hypercalcaemia caused by which one of the following is most likely to respond to treatment with corticosteroids ?
(a) Primary hyperparathyroidism
(b) Milk alkali syndrome
(c) Sarcoidosis
(d) Paget's disease

2011

859. Which of the following metabolic disorders is associated with hypokalemia ?
(a) Metabolic acidosis
(b) Metabolic alkalosis
(c) Respiratory acidosis
(d) Mixed acidosis

2011

860. Enalapril use is not advisable in the following conditions except :

NODIA

(a) Single kidney
(b) Diabetic nephropathy with albuminuria
(c) Bilateral renal artery stenosis
(d) Hyperkalaemia

2011

861. A 20-year-old male presents with pain in the knee joints for the last two weeks. He also has mild backache and stiffness. He had fever and diarrhoea four weeks previous to developing these complaints. The patient is afebrile and has no diarrhoea. His laboratory investigations reveal normal ESR and elevated CRP. What is the most probable diagnosis ?
(a) Ankylosing spondylitis
(b) Rheumatoid arthritis
(c) Enteropathic arthritis
(d) Reactive arthritis

2011

862. Which one of the following clinical features is not characteristic of Giant Cell Arteritis ?
(a) Headache is usually the first symptom
(b) Jaw pain during chewing
(c) Palatal paralysis
(d) Loss of visual acuity

2011

863. Which one of the following statements is best suited for isolated poly myalgia rheumatic a ?
(a) Temporal artery biopsy is necessary to confirm the diagnosis
(b) Response to oral corticosteroids typically occurs within seven days
(c) Corticosteroid therapy should be withdrawn after six months
(d) Sudden uniocular blindness suggests steroid-induced cataract

2011

864. Which of the following constitute Felty's syndrome?
(a) Rheumatoid arthritis, splenomegaly and neutropenia
(b) Rheumatoid arthritis, hepatomegaly and neutropenia
(c) Rheumatoid arthritis, psoriasis and anaemia
(d) Reactive arthritis, splenomegaly and anaemia

2011

865. Consider the following disorders :
1. Sydenham's chorea
2. Migraine
3. Mania
4. Obsessive compulsive disorder

Valproic acid is used in which of the above disorders ?
(a) 1 and 3 only
(b) 2 and 4 only
(c) 1, 2 and 3
(d) 2, 3 and 4

2011

866. In schizophrenia, the following are considered to be negative symptoms except :
(a) Anhedonia
(b) Decreased emotional expression
(c) Impaired concentration
(d) Hallucinations

2011

867. Consider the following medical conditions :
1. Recent myocardial infarction
2. Cerebrovascular accident
3. Artificial heart valve
4. Retinal detachment

Electroconvulsive therapy is contraindicated in
(a) 1 and 3 only
(b) 2 and 4 only
(c) 2, 3 and 4
(d) 1, 2 and 4

2011

868. Lithium is the drug of choice for the treatment of
(a) Bipolar disorder
(b) Dysthymia
(c) Anxiety neurosis
(d) Schizophrenia

2011

869. Match List I with List II and select the correct answer using the code given below the lists :

	List I		**List II**
A	Myxoedema	1	Anosmia
B	Kallmann syndrome	2	Hypouricaemia
C	Hyperald -osteronism	3	Alkalosis
D	Hepatic failure	4	Pseudomyotonia

Code :
(a) A-1 B-3 C-2 D-4
(b) A-1 B-4 C-2 D-3

Downloaded from www.pdf.tube

(c) A-4 B-1 C-3 D-2
(d) A-3 B-1 C-2 D-4

2011

870. Which one of the following myopathies is correctly matched ?
(a) Facioscapulohumeral : Autosomal recessive
(b) Limb girdle type : Autosomal dominant
(c) Dystrophia myotonica : Autosomal dominant
(d) Duchenne muscular dystrophy : X-linked recessive

2011

871. The following drugs can be used for the management of status asthmaticus except :
(a) Magnesium sulphate
(b) Montelukast
(c) Corticosteroid
(d) Adrenaline

2011

872. A 36-year-old woman presents with muscle weakness. Her serum K^+ value is 2.0 mEq/L. Consider the following as the possible causes:
1. Persistent vomiting
2. Acute intravascular haemolysis
3. Conn's syndrome
4. Rhabdomyolysis

Select the correct answer using the code given below :
(a) 1 only
(b) 1 and 3 only
(c) 2 and 4 only
(d) 3 and 4 only

2011

873. The most common finding associated with fibromyalgia syndrome is
(a) High ESR
(b) Musculoskeletal pain without local tenderness
(c) Spontaneous resolution of symptoms
(d) Tiredness and insomnia

2011

874. Digoxin is contraindicated in
(a) Supraventricular tachycardia
(b) Hypertrophic cardiomyopathy
(c) Atrial fibrillation
(d) Congestive cardiac failure

2011

875. A 45-year-old man is hospitalized with acute inferior wall myocardial infarction. He develops sinus bradycardia at 40 beats per minute and his blood pressure is 100/60 mmHg. Which of the following should be the first-line intervention ?
(a) IV atropine
(b) IV dopamine
(c) IV isoproterenol
(d) Temporary pacemaker

2011

876. In a patient of primary hypothyroidism, the hormonal profile will read
(a) Low T_3, low T_4, low TSH
(b) Low T_3, low T_4, high TSH
(c) High T_3, high T_4, high TSH
(d) Low T_3, low T_4, normal TSH

2011

NODIA

877. Which of the following is an Angiotensin Converting Enzyme (ACE) inhibitor ?
(a) Atenolol
(b) Prazosin
(c) Hydralazine
(d) Enalapril

2011

878. Which drug among the following can produce pseudotumour cerebri ?
(a) Nalidixic acid
(b) Ampicillin
(c) Chloramphenicol
(d) Ceftriaxone

2011

879. 1.A young college student having regular heart rate of 172 beats per minute attends OPD for uneasy sensation in chest. Carotid sinus pressure brings down the heart rate to 72 per minute. What is the most likely diagnosis ?
(a) Ventricular tachycardia
(b) Atrial fibrillation
(c) Sinus arrhythmia
(d) Paroxysmal supraventricular tachycardia

2010

880. A 66-year-old lady presents to emergency with 2 episodes of vomiting. Her ECG shows elevation of ST segment in inferior leads. Her BP is 80 mm systolic. The best way to start correcting her BP is
(a) Immediate Thrombolysis
(b) Rescue PTCA

(c) Normal saline infusion
(d) Dopamine infusion

2010

881. A 15-year-old boy is brought to the emergency room by the class teacher from the chemistry laboratory. The boy is an atopic individual with pulse rate of 116/minute regular, unable to speak in sentences and ABG shows severe hypoxaemia. What is the probable diagnosis ?
(a) Acute bacterial pneumonia
(b) Acute severe asthma
(c) Acute pleurisy
(d) Tension pneumothorax

2010

882. A 45-year-old man presented with regurgitated food particles eaten several days earlier. He has foul smelling breath and occasional dysphagia for solid food. What is the probable diagnosis ?
(a) Gastric outlet obstruction
(b) Zenker's diverticulum
(c) Scleroderma
(d) Diabetic gastroptosis

2010

883. A 24-year-old woman with the history of ulcerative colitis presented with progressive jaundice associated with pruritus and intermittent right upper quadrant abdominal pain. What would be the most likely ERCP finding ?
(a) Normal finding
(b) Diffuse strictures of common bile duct
(c) Malignant strictures of common bile duct
(d) Stones

2010

884. Early recurrent falls in elderly with ophthalmoplegia suggests the possibility of
(a) Huntington's chorea
(b) Parkinson's disease
(c) Shy-Drager syndrome
(d) Progressive supra nuclear palsy

2010

885. Consider the following :
Recognized causes of proximal type II Renal Tubular Acidosis (RTA) include :
1. Amyloidosis
2. Heavy metal poisoning
3. Renal transplant rejection
4. Hyperparathyroidism

Select the correct answer using the code given below :
(a) 1, 3 and 4
(b) 1 and 2 only
(c) 1, 2 and 3
(d) 2, 3 and 4

2010

886. Criteria for hospital admission of an adult with community acquired pneumonia includes all except :
(a) Respiratory rate 28/min
(b) Total leukocyte count 11,000/cu mm
(c) New onset confusion or impaired level of consciousness
(d) Hypoxemia PaO2 < 60 mm Hg

2010

887. Allergic bronchopulmonary aspergillosis is a condition which often occurs in patients with pre-existing
(a) Adeno-carcinoma lung
(b) Pulmonary tuberculosis
(c) Bronchial asthma
(d) Sarcoidosis

2010

888. A 27-year-old lady presents with menorrhagia. She is worried as she has gained 12 kg weight and her hair is becoming coarse. She also complains of constipation. What is the single best test for evaluation of this patient ?
(a) Thyroid scan
(b) Serum iodine
(c) Free T4
(d) TSH

2010

889. Duchenne muscular dystrophy is transmitted as
(a) X linked dominant
(b) X linked recessive
(c) Autosomal dominant
(d) Autosomal recessive

2010

890. What is the treatment of choice in a patient of Haemophilia A ?
(a) Epoprostenol
(b) Oral corticosteroids
(c) Recombinant factor VIII concentrate
(d) Blood transfusion

2010

Click Here to Buy book on Amazon

891. What is the optimum duration of antibacterial treatment of acute bacterial prostatitis ?
(a) 3 days
(b) 4 – 6 weeks
(c) 7 – 14 days
(d) 2 – 14 days
2010

892. A blood sample from a patient with polycythemia vera is sent for complete blood count. Which of the following blood components is most likely to be reported within normal limits ?
(a) Lymphocytes
(b) Neutrophils
(c) Platelets
(d) RBCs
2010

893. Polyuria in nephrogenic diabetes insipidus is improved by the following except
(a) Thiazide diuretics
(b) Amiloride
(c) Indomethacin
(d) Frusemide
2010

894. Consider the following :
1. Sulfonylureas
2. Biguanides
3. Thiazolidinediones
Which of the above is/are not recommended for use as first line therapy in type 1 diabetes mellitus ?
(a) 1 only
(b) 1 and 2 only
(c) 2 and 3 only
(d) 1, 2 and 3
2010

895. All of the following drugs increase urinary excretion of uric acid except
(a) Acetyl salicylic acid
(b) Phenylbutazone
(c) Sulfinpyrazone
(d) Acetaminophen
2010

896. Wernicke's encephalopathy consists of
(a) Mental impairment, ophthalmoplegia and cerebellar ataxia
(b) Delirium, facial palsy and cerebellar ataxia
(c) Ophthalmoplegia, hearing loss and ataxia
(d) Ophthalmoplegia, facial palsy and ataxia
2010

NODIA

897. A cystic boggy inflammatory swelling over scalp in a child with partial or complete alopecia is called
(a) Folliculitis decalvans
(b) Hematoma
(c) Kerion
(d) Congenital syphilis
2010

898. Wood's lamp is helpful in recognition of 'ash leaf' spots in patients with
(a) Atopic dermatitis
(b) Lichen planus
(c) Nummular eczema
(d) Tuberous sclerosis
2010

899. A 21-year-old man presents with recurrent episodes of intensely pruritic vesicles symmetrically distributed over the trunk. On electron microscopy, granular deposition of IgA and complement is noted at the mucoepidermal junction. Which of the following underlying conditions predisposes patients to the described skin disorder ?
(a) Celiac sprue
(b) Lactase deficiency
(c) Whipple's disease
(d) Ulcerative colitis
2010

900. As regards carpal tunnel syndrome, which one of the following statements is not correct ?
(a) It may occur in hypothyroidism.
(b) Pain or tingling of fingers often occurs at night.
(c) There is decreased strength of abduction, flexion and opposition of the thumb.
(d) Localised tenosynovitis of the flexor tendons of the fingers is an infrequent cause.
2010

901. Match List I with List II and select the correct answer using the code given below the lists :

	List I		**List II**
A	Anti ds DNA	1	Drug induced lupus
B	Anti RNP	2	Crest syndrome
C	Anti Histone	3	S.L.E

D	Anti Centro-mere	4	MCTD

Code :
(a) A-2 B-4 C-1 D-3
(b) A-2 B-1 C-4 D-3
(c) A-3 B-4 C-1 D-2
(d) A-3 B-1 C-4 D-2

2010

902. A young adult presents in emergency room with acute onset of dysphagia, bilateral ptosis and generalized muscle weakness. What is the most likely possibility ?
(a) Thyrotoxic myopathy
(b) Myasthenia gravis
(c) Muscular dystrophy
(d) Hypokalaemic periodic paralysis

2010

903. The following are the features of schizophrenia except
(a) Delusions
(b) Loosening of associations
(c) Flight of ideas
(d) Hallucinations

2010

904. Match List I with List II and select the correct answer using the code given below the lists :

	List I		**List II**
A	Thioridazine	1	Pigmentary reti-nopathy
B	Clozapine	2	Somnolence
C	Olanzapine	3	Akthisia
D	Haloperidol	4	Agranulocytosis

Code :
(a) A-1 B-3 C-2 D-4
(b) A-1 B-4 C-2 D-3
(c) A-4 B-1 C-2 D-3
(d) A-1 B-4 C-2 D-3

2010

905. Match List I with List II and select the correct answer using the code given below the lists :

	List I		**List II**
A	Bipolar disorder	1	Clomip-ramine
B	Major depression	2	Clozapine
C	Schizophrenia	3	Venlafaxine
D	Obsessive compulsive disorder	4	Lithium

(a) A-1 B-3 C-2 D-4
(b) A-1 B-4 C-2 D-3
(c) A-4 B-3 C-2 D-1
(d) A-3 B-1 C-2 D-4

2010

906. A 70-year-old man presents with difficulty in finding ways around his neighbourhood. His wife says he has become forgetful and cannot manage money. He has difficulty in naming his relatives. Clinical examination reveals ideomotor apraxia and memory impairment. The available drugs to manage this condition usually target which one of the following neurotransmitters ?
(a) Serotonin
(b) Histamine
(c) Acetylcholine
(d) Dopamine

2010

907. Match List I with List II and select the correct answer using the code given below the lists :

	List I		**List II**
A	Atrio-ventricular block	1	Phenothiazine
B	Sinus tachycar-dia	2	Beta blockers
C	Wide QRS	3	Terfenadine
D	QT interval pro-longation	4	Theophylline

Code :
(a) A-1 B-3 C-2 D-4
(b) A-1 B-4 C-2 D-3
(c) A-4 B-1 C-2 D-3
(d) A-2 B-4 C-1 D-3

2010

908. Intravenous immunoglobulin therapy is indicated in the following conditions except
(a) Idiopathic thrombocytopenic purpura
(b) Severe rheumatoid arthritis
(c) Guillain Barré syndrome
(d) Dermatomyositis

2010

909. In a case of undifferentiated arthritis, presence of anti-cyclic citrullinated peptide (anti CCP)

NODIA

indicates strong possibility of which of the following ?
(a) Rheumatoid arthritis
(b) Systemic lupus erythematosis
(c) Mixed connective tissue disorder
(d) Reactive arthritis

2010

910. Which of the following regimens is best for the pre-operative management of a patient with pheochromocytoma ?
(a) Propranolol alone
(b) Propranolol followed by phenoxy-benzamine
(c) Prazosin
(d) Phenoxy-benzamine followed by propranolol

2010

911. Digitalis glycosides enhance myocardial contractility primarily by which one of the following mechanisms ?
(a) Opening of calcium channels
(b) Inhibition of membrane Na^+, K^+-ATPase
(c) Stimulation of myosin ATPase
(d) Release of calcium from the sarcoplasmic reticulum

2010

912. Which one of the following is the drug of choice in the treatment of Torsades de pointes ?
(a) Magnesium sulphate
(b) Isoproterenol
(c) Procainamide
(d) Atropine

2010

913. The following chemotherapeutic drugs have cardiovascular toxicity except
(a) Cyclophosphamide
(b) Doxorubicin
(c) Azathioprine
(d) Mitoxantrone

2010

914. Dysphagia which is more for liquids than for solids in a 25-year-old female strongly suggests the possibility of
(a) Pseudobulbar palsy
(b) Achalasia of oesophagus
(c) Carcinoma of oesophagus
(d) Corrosive induced oesophageal stricture

2010

915. A 7-year-old child with rheumatic heart disease presents with pallor, fever and a palpable spleen. The following investigations would be needed to arrive at a diagnosis except
(a) Electro-cardiogram
(b) Echocardiogram
(c) Blood culture
(d) Urine examination

2010

916. An eight-year-old boy is suspected to have acute rheumatic carditis. An ECG is most likely to reveal
(a) Prolonged PR interval
(b) Prolonged QT interval
(c) ST-T wave changes
(d) Sinus bradycardia

2010

917. Chloroma is a feature of
(a) Burkitt's lymphoma
(b) Acute lymphoblastic leukaemia
(c) Acute myeloid leukaemia
(d) Ewing's sarcoma

2010

918. Lutembacher's syndrome comprises of
(a) Ventricular septal defect with aortic stenosis
(b) Ruptured sinus of valsalva aneurysm
(c) Atrial septal defect with mitral stenosis
(d) Complete common atrioventricular canal

2010

919. Recently, a substance isolated from the leaves of which one of the following plants is able to induce death of cancer cells in chronic myeloid leukaemia ?
(a) Aloe
(b) Betel
(c) Bryophyllum
(d) Mint

2009

920. Kerley B Lines in the chest X-ray of a patient is a radiological feature of
(a) Respiratory failure
(b) Heart failure
(c) Renal failure
(d) Liver failure

2009

921. Pulsus paradoxus can be seen in the following clinical states except :
(a) Pericardial tamponade

Downloaded from www.pdf.tube

(b) Acute severe asthma
(c) Acute myocardial infarction
(d) Massive pulmonary embolism

2009

922. A fifty-year-old woman presents with dry cough and progressive breathlessness of two years duration. Examination reveals clubbing, cyanosis and bibasilar crepts. What is the probable diagnosis ?
(a) Bronchiectasis
(b) Lung abscess
(c) Interstitial lung disease
(d) Pulmonary tuberculosis

2009

923. Pleural effusion with very low glucose is characteristically seen in
(a) Malignancy
(b) Tuberculosis
(c) SLE
(d) Rheumatoid arthritis

2009

924. Which one of the following is not a feature of Kartagener's syndrome ?
(a) Bronchiectasis
(b) Ciliary dyskinesia
(c) Pancreatic insufficiency
(d) Situs inversus

2009

925. Which one of the following distinguishes ARDS (Acute/Adult Respiratory Distress Syndrome) from Cardiogenic pulmonary oedema ?
(a) Normal Pa O_2
(b) Normal pulmonary arterial pressure
(c) Normal arterial-alveolar gradient
(d) Normal Pa CO_2

2009

926. Which one of the following statements is not correct about chronic obstructive pulmonary diseases (COPD) ?
(a) Respiratory flow rates are decreased
(b) Total lung capacity is normal or increased
(c) Residual volume is increased
(d) Vital capacity is increased

2009

927. The following drugs can cause eosinophilic pneumonia except :
(a) Nitrofurantoin
(b) Amiodarone
(c) Sulfonamides
(d) Non-steroidal anti-inflammatory drugs (NSAIDs)

2009

928. A 55-year-old woman presents with progressively deepening jaundice, uncontrollable pruritus, pain in the abdomen (right upper quadrant) and yellow coloured urine. Investigations revealed :

Serum bilirubin	19.5 mg%
S.G.P.T.	45 IU/L
Serum alkaline phosphatase	1225 IU/L
Prothrombin time	25 sec
Urine bile pigment	Present
Urine urobilinogen	Absent
Stools	clay coloured

What would be the most likely diagnosis ?
(a) Viral hepatitis
(b) Cirrhosis of liver
(c) Carcinoma of head of the pancreas
(d) Hepato-cellular carcinoma

2009

929. A 20-year-old man presents with repeated episodes of haematemesis. There is no history of jaundice or liver decompensation. On examination the significant findings include moderate splenomegaly and presence of esophageal varices. There is no ascites or peptic ulceration. The liver function tests are normal. What is the most likely diagnosis ?
(a) Extrahepatic portal venous obstruction
(b) Noncirrhotic portal fibrosis
(c) Cirrhosis
(d) Hepatic venous outflow tract obstruction

2009

930. Hyperkalemia is observed in which one of the following conditions ?
(a) Type 1 Renal tubular acidosis
(b) Type 2 Renal tubular acidosis
(c) Type 4 Renal tubular acidosis
(d) Bartter's syndrome

2009

931. The following features are true about membranous glomerulopathy except :
(a) Heavy proteinuria
(b) Hyperlipidemia
(c) Early onset of renal failure
(d) Response to steroids

NODIA

2009

932. In which one of the following conditions, is a renal biopsy contraindicated ?
(a) Acute renal failure
(b) Uncontrolled Hypertension
(c) Nephritic syndrome
(d) Isolated Hematuria

2009

933. The following are common causes of seizures in adults older than 60 years of age except :
(a) Cerebrovascular disease
(b) Central nervous system neoplasia
(c) Degenerative disease
(d) Mesial temporal lobe sclerosis

2009

934. The typical CSF profile in cases of viral meningitis after 48 hours of onset is
(a) Lymphocytic pleocytosis, normal glucose level, normal or slightly elevated protein level
(b) Neutrophilic pleocytosis, raised glucose level, normal protein level
(c) Lymphocytic pleocytosis, low glucose level, low protein level
(d) Neutrophilic pleocytosis, normal glucose level, elevated protein level

2009

935. Cranial nerve most commonly involved in posterior communicating artery aneurysm is
(a) Occulomotor
(b) Facial
(c) Optic
(d) Trigeminal

2009

936. All the following drugs are known to cause pseudo tumour cerebri except :
(a) Gentamycin
(b) Tetracycline
(c) Vitamin A
(d) Oral contraceptive pills

2009

937. A 35-year-old man presents with daily headache. He describes two attacks per day over the last 3 weeks. Each attack lasts about an hour and awakens him from sleep. The patient has noticed associated tearing and reddening of the right eye as well as nasal stuffiness. The pain is deep, excruciating, and limited to the right side of the head. The neurological examination is normal. What is the most likely diagnosis ?
(a) Migraine headache
(b) Tension headache
(c) Cluster headache
(d) Brain tumour

2009

938. In which of the following conditions is cardiac involvement not a usual feature ?
(a) Facio-scapulo-humeral dystrophy
(b) Duchenne's muscular dystrophy
(c) Friedreich's ataxia
(d) Myotonic dystrophy

2009

939. Drugs associated with ischemic stroke include the following except :
(a) Cocaine
(b) Oral contraceptives
(c) Amphetamines
(d) Barbiturates

2009

940. A 25-year-old man presents with fever and altered sensorium. The CSF analysis revealed :

Pressure	Raised
Appearance	Opalescent and on standing cobweb formation seen
Protein	220 mg%
Sugar	30 mg%
Cells	1250 per field mostly lymphocytes
Globulin	Positive

Which one of the following is the most likely diagnosis ?
(a) Meningococcal meningitis
(b) Subarachnoid haemorrhage
(c) Cryptococcal meningitis
(d) Tuberculous meningitis

2009

941. von Willebrand's factor is synthesized in which one of the following ?
(a) Vascular endothelium
(b) Macrophages
(c) Liver
(d) Eosinophils

2009

Click Here to Buy book on Amazon

942. Which one of the following laboratory tests differentiates leukemoid reaction from chronic myeloid leukemia ?
(a) LAP (Leukocyte alkaline phosphatase)
(b) LCA (Leukocyte common antigen)
(c) MPO (Myelo peroxidase)
(d) TRAP (Tartrate resistant alkaline phosphatase)

2009

943. The first-line drug therapy in chronic myeloid leukemia is
(a) Hydroxy carbamide
(b) Alpha interferon
(c) Busulphan
(d) Imatinib

2009

944. Which one of the following is not consistent with the diagnosis of aplastic anemia ?
(a) Hematopoietic cells occupying < 25% of marrow space
(b) Hematopoietic cells morphology should be normal
(c) Normocytic normochromic anemia
(d) Splenomegaly

2009

945. The agent of choice for controlling heparin induced bleeding is
(a) Protamine sulphate
(b) Injectable Vitamin K
(c) Whole blood
(d) Fresh frozen plasma

2009

946. Thrombocytosis may be seen in the following conditions except :
(a) Idiopathic myelofibrosis
(b) Chronic myeloid leukemia
(c) Essential thrombocythemia
(d) Hypersplenism

2009

947. The following are the features of β thalassemia major except :
(a) Bone marrow hyperplasia
(b) Hair-on-end appearance
(c) Splenomegaly
(d) Increased osmotic fragility

2009

948. Which one of the following disorders is not associated with Carpal Tunnel Syndrome ?
(a) Diabetes mellitus
(b) Hypothyroidism
(c) Acromegaly
(d) Addison's disease

2009

NODIA

949. A diabetic patient in hypoglycemia does not regain consciousness despite blood glucose restoration to normal. Which one of the following is the most likely condition or explanation ?
(a) Cerebral edema
(b) Alcohol intoxication
(c) Post-ictal state
(d) Cerebral hemorrhage

2009

950. Which one of the following is the most appropriate treatment of hyperthyroidism due to subacute lymphocytic thyroiditis ?
(a) Propylthiouracil
(b) Radioactive iodine ablation
(c) Subtotal thyroidectomy
(d) Beta blockers

2009

951. The following are consistent with pheochromocytoma except :
(a) Episodic diarrhea
(b) Episodic flushing of skin
(c) Episodes of hypertension
(d) Paroxysm, palpitation and sweating

2009

952. Most specific diagnostic finding in gout is
(a) Uric acid crystals in urine
(b) Raised serum uric acid
(c) Presence of calcium pyrophosphate crystals in synovial fluid
(d) Presence of monosodium urate crystals in synovial fluid

2009

953. Increased anion gap is found in the following disorders except :
(a) Diabetic ketoacidosis
(b) Starvation ketosis
(c) Renal tubular acidosis
(d) Lactic acidosis

2009

954. The following features are correct in the case of Syndrome of Inappropriate Anti-Diuretic Hormone (SIADH) except :
(a) Low-normal plasma urea

secretion. While hypocalcemia is more typical in acute pancreatitis (due to fat necrosis binding calcium), hypercalcemia is not a recognized complication here. Reduced serum albumin may occur in severe, prolonged illness from poor nutritional status or liver dysfunction. Thus, hypoxia, hyperglycemia, and lowered albumin are recognized complications.

14. (a) Endoscopic small bowel biopsy
The definitive (gold standard) method to diagnose celiac disease is to obtain small intestinal mucosal samples via endoscopic biopsy. Characteristic histopathological findings—such as villous atrophy, crypt hyperplasia, and increased intraepithelial lymphocytes—confirm the diagnosis. Although serologic tests (anti-tTG, anti-endomysial antibodies) are highly useful for screening, biopsy remains the reference standard to establish the diagnosis, assess disease severity, and rule out other causes of similar small bowel changes.

15. (b) 1, 2 and 4
Triple therapy for H. pylori generally comprises a proton-pump inhibitor (PPI) plus two antibiotics (e.g., clarithromycin and amoxicillin/metronidazole), and it is prescribed for at least 7–14 days. Addressing H. pylori in those requiring long-term NSAIDs significantly reduces the risk of peptic ulcers and rebleeding. Although prolonged PPI use can sometimes affect vitamin B12 absorption, H. pylori eradication itself is not classically a direct cause of vitamin B12 deficiency. Hence, statements 1, 2, and 4 are correct.

16. (d) 1, 2 and 3
Hepatic encephalopathy in cirrhotic patients can be triggered by several factors that raise blood ammonia or other toxins. Hypokalemia (often related to diuretic use) promotes renal ammonia production; infections or sepsis (e.g., spontaneous bacterial peritonitis) worsen hepatic dysfunction; and increased dietary protein load raises nitrogenous substrates available for ammonia generation. Identifying and correcting these precipitating factors, along with lactulose and/or rifaximin therapy, are central to managing and preventing recurrent episodes of hepatic encephalopathy.

17. (b) Eradication of Helicoptered pylori in patients with bleeding ulcers decreases the re bleeding rates to less than 5%.
Peptic ulcers (especially if H. pylori-positive) account for the most common cause of upper GI bleeding rather than varices. Once an H. pylori-positive bleeding ulcer is treated endoscopically, eradication therapy substantially lowers ulcer recurrence and re bleeding risk—often to well below 5%. Patients requiring aspirin for secondary prevention of cardiovascular events usually resume it after controlling the GI bleed. TIPS is reserved for refractory or recurrent variceal hemorrhage rather than mandating a fixed hospitalization period.

18. (a) Autosomal recessive disorder
Crigler-Najjar syndrome type I is a rare, severe disorder of bilirubin metabolism caused by an absence of the enzyme uridine diphosphate glucuronyl transferase (UGT1A1). It is passed down in an autosomal recessive manner, requiring both parents to pass on a mutated gene for the syndrome to manifest. Affected individuals present with markedly elevated unconjugated bilirubin from birth, often leading to kernicterus if untreated. Phototherapy and, in some cases, liver transplantation may be necessary.

19. (d) Periodic acid Schiff
Whipple's disease, caused by Tropheryma whipplei, features periodic acid–Schiff (PAS)-positive foamy macrophages in the intestinal lamina propria. PAS highlights the glycoprotein content within these macrophages, creating a distinctive magenta coloration. Clinically, Whipple's disease manifests with malabsorption, diarrhea, weight loss, and sometimes systemic features such as arthralgias or neurologic symptoms. The PAS-positive macrophages are pathognomonic, helping differentiate Whipple's from other causes of malabsorption or inflammatory bowel diseases.

20. (d) Neomycin or Rifaximin

Downloaded from www.pdf.tube

STUDYING FROM PDFs?

THINK AGAIN.

If you are studying only from PDFs,
you are wasting valuable time.

Research shows that learning from

PRINTED BOOKS has up to

4× HIGHER RETENTION

than studying from screens.

PRINT BOOK = BETTER MEMORY

PDF = LOWER RETENTION

Those who study from **PRINTED BOOKS**
move **AHEAD.**

Others are left **BEHIND**
in competition.

In competitive exams,
being average is not enough.

STAY ONE STEP AHEAD.

progressive deafness. His brother suffers from similar illness. What is the most likely diagnosis ?
(a) Alport syndrome
(b) Henoch-Schönlein vasculitis
(c) Familial lupus
(d) Wegener's granulomatosis

2009

967. Which one of the following is most commonly associated with internuclear ophthalmoplegia ?
(a) Congenital nystagmus
(b) Spino-cerebellar degeneration
(c) Multiple sclerosis
(d) Progressive supranuclear palsy

2009

968. Abnormalities of copper metabolism are implicated in the pathogenesis of all the following except :
(a) Wilson's Disease
(b) Menkes' Kinky-hair Syndrome
(c) Indian Childhood Cirrhosis
(d) Keshan disease

2009

969. Consider the following statements regarding thyroid hormones :
1. Majority of the circulating T_3 remains in bound form.
2. Only 50% of the circulating T_3 is secreted by thyroid.
3. TSH estimation is not a sensitive test for diagnosis of primary hypothyroidism.
4. Fetal pituitary-thyroid axis is dependent to a large extent on maternal pituitary-thyroid axis.

Which of the statements given above is/are correct ?
(a) 1 only
(b) 1 and 2 only
(c) 2 and 4 only
(d) 1, 2, 3 and 4

2009

970. The 'a' wave of jugular venous pulse is produced by
(a) Atrial relaxation
(b) Atrial systole
(c) Atrial diastole
(d) Rapid venous filling

2009

971. A 40-year-old lady complains of progressive deformities of her hands and fingers associated with stiffness which is present in both the hands and improves as the day progresses. On examination, there is symmetrical involvement of hands and fingers of both the upper limbs with flexion and ulnar deviation at the metacarpophalangeal joints. What is the most likely diagnosis in this lady?
(a) Osteoarthritis
(b) Ankylosing spondylitis
(c) Rheumatoid arthritis
(d) Tenosynovitis

2024

972. Upper motor neuron lesions are characterized by which of the following?
1. Increased tone spasticity
2. Hyperreflexia
3. Absent plantar response
4. Motor weakness

Select the correct answer using the code given below.
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2024

NODIA

973. Which of the followings are blood values of Iron Deficiency Anaemia ?
1. Serum iron is less than 30 μg/100 mL
2. Total iron binding capacity is less than 400 μg/dL
3. Percentage saturation is 10% or less
4. Serum ferritin is below 30 μg/mL

Select the correct answer using the code given below :
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2023

974. Which of the following are the extra intestinal manifestations of Crohn's disease related to disease activity?
1. Amyloidosis
2. Pyoderma gangrenous
3. Primary sclerosing cholangitis
4. Arthropathy

(b) Bowen's Disease
(c) Giant Hairy Naevus
(d) Rhinophyma

2015

994. Which one of the following substances induces no dependence?
(a) Barbiturates
(b) Cannabis
(c) Heroin
(d) LSD

2014

995. Primary hyperaldosteronism presents with all of the following except :
(a) Hypertension
(b) Hyperkalemia
(c) Periodic paralysis
(d) Frontal headache

2013

996. Horrock's apparatus is used to measure :
(a) Free chlorine
(b) Combined chlorine
(c) Free and combined chlorine
(d) Chlorine demand

2013

997. The commonest cause of primary hyperparathyroidism is
(a) Idiopathic parathyroid hyperplasia
(b) Familial hyperparathyroidism
(c) Parathyroid adenoma
(d) Primary parathyroid carcinoma

2012

998. Blood stored in the blood bank is deficient in which of the following coagulation factors ?
(a) Factor II only
(b) Factors II and VII
(c) Factors V and VIII
(d) Factors IX and X

2012

999. Iron is absorbed predominantly in the
(a) Stomach
(b) Jejunum
(c) Ileum
(d) Colon

2012

1000. The following hormonal changes mark the Polycystic Ovarian Disease except
(a) Hyperinsulinism
(b) Hypermodernism
(c) Raised LH, Raised FSH
(d) Raised LH, Low-to-normal FSH

2011

1001. The genetic inheritance of Haemophilia is
(a) Sex-linked dominant
(b) Sex-linked recessive
(c) Autosomal dominant
(d) Autosomal recessive

2011

1002. Basophilic stippling of the RBCs is a sensitive index of
(a) Lead poisoning
(b) Arsenic poisoning
(c) Asbestosis
(d) Silicosis

2011

1003. Which one of the following statements about Human Immunoglobulins is not correct?
(a) IgG comprises about 85% of the total serum immunoglobulins
(b) IgG and IgM can both cross the placenta
(c) The half life of IgM is about 10 days
(d) IgA comprises 15% of the total serum immunoglobulins and is mainly found in the body secretions

2011

1004. Serum calcitonin may be elevated in
(a) islet cell tumour of pancreas
(b) choriocarcinoma of ovary
(c) carcinoid tumour of appendix
(d) medullary carcinoma of thyroid

2010

1005. Osteitis fibrosa cystica is a feature of
(a) hyperthyroidism
(b) milk-alkali syndrome
(c) hyperparathyroidism
(d) rickets

2010

1006. Priapism in a young male could occur because of
(a) testicular cancer
(b) carcinoid tumour of appendix
(c) leukaemia
(d) penile cancer

2010

Click Here to Buy book on Amazon

(d) 2, 3 and 4

2021

983. Medical management of thyrotoxic crisis includes all of the following EXCEPT:
(a) IV fluids
(b) IV propanolol
(c) IV hydrocortisone
(d) IV antibiotics

2020

984. Which one of the following is NOT true of Pyoderma gangrenosum?
(a) It is characterized by cutaneous ulceration with purple undermined edges
(b) It is often secondary to heightened immunological reactivity from another disease process
(c) Cultures often show Gram positive Staphylococci
(d) Lesions generally respond to steroids

2020

985. Which one of the following is NOT correct regarding MEN-1 syndrome?
(a) It involves parathyroid glands
(b) It involves pancreas
(c) It involves pituitary gland
(d) It involves pineal gland

2020

986. A few days following viral fever, a 50 year old female presented with pain in neck, fever, malaise and firm enlargement of both the lobes of thyroid. On investigation thyroid antibodies were normal & serum T4 was high normal. Probable diagnosis is:
(a) Autoimmune thyroiditis
(b) Lymphoma of thyroid
(c) Granulomatous thyroiditis
(d) Riedel's thyroiditis

2019

987. Which one of the following conditions is NOT inborn error of metabolism?
(a) Tay-Sach's disease
(b) Maple syrup urine disease
(c) Neural tube defects
(d) Down's syndrome

2019

988. All the following are features of Polycystic disease of kidneys EXCEPT:
(a) Haematuria
(b) Hypertension
(c) Renal failure
(d) Erythrocytosis

2017

989. A patient has recurrent abdominal pain and jaundice. The blood investigations reveal reticulocytosis and hyperbilirubinemia. What is the clinical diagnosis?
(a) Hereditary spherocytosis
(b) Mirizzi's syndrome
(c) Choledochal cyst
(d) Sclerosing cholangitis

2016

990. Consider the following statements:
Haemophilia A (haemophilia) and Haemophilia B (Christmas disease)
1. Are variants of the same disease process
2. Are due to congenital deficiency of factor VIII and factor IX respectively
3. Both are sex linked characteristics and transmitted by asymptomatic females
4. Can occur both in males and females

Select the correct answer using the code given below:
(a) 2 and 3
(b) 1, 2 and 4
(c) 2 only
(d) 3 only

2016

991. The following are manifestations of psychosis except:
(a) Psychoneurosis
(b) Schizophrenia
(c) Manic depressive psychosis
(d) Paranoia

2016

992. An obese 45 year lady who is a chronic smoker came with tender subcutaneous nodules with chronic inflammation with scarring under her left axilla. She is likely to be suffering from:
(a) Lipodystrophy
(b) Hidradenitis suppurative
(c) Xeroderma pigmentosum
(d) Pyoderma gangrenosum

2015

993. All of the following are premalignant lesions except:
(a) Actinic Solar Keratosis

Downloaded from www.pdf.tube

Select the correct answer using the code given below.
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

975. Cystic fibrosis involves which of the following organs?
1. Lungs
2. Liver
3. Pancreas
4. Kidney

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 2, 3 and 4
(c) 1, 3 and 4
(d) 1, 2 and 4

2022

976. Which of the following are correct about Felty's syndrome?
1. It is associated with rheumatoid arthritis.
2. It may present with leukopenia.
3. It may have splenomegaly.
4. Splenectomy always improves the blood picture.

Select the correct answer using the code given below.
(a) 1, 2 and 3
(b) 2, 3 and 4
(c) 1, 3 and 4
(d) 1, 2 and 4

2022

977. Which of the following are the clinical features of hyperproteinemia?
1. Hyper gonadotropic hypogonadism
2. Hypo gonadotropic hypergonadism
3. Oligomenorrhea
4. Heavy menstruation

Select the correct answer using the code given below.
(a) 1 and 3
(b) 1 and 4
(c) 2 and 3
(d) 2 and 4

2022

978. The single most sensitive tool for evaluating the iron status in an individual is
(a) haemoglobin concentration
(b) serum iron concentration
(c) serum ferritin value
(d) serum transferrin saturation

2022

979. Which of the following statements are correct in respect of haemophilia?
1. It is hereditary bleeding disorder.
2. It has a higher incidence among Asians.
3. It affects females occasionally and mildly.

Select the correct answer using the code given below.
(a) 1 and 2 only
(b) 1 and 3 only
(c) 2 and 3 only
(d) 1, 2 and 3

2022

980. Among the extra intestinal manifestations of Crohn's disease which one of the following is related to the disease activity ?
(a) Eye complications (Iritis/Uveitis)
(b) Renal calculi
(c) Primary sclerosing cholangitis
(d) Chronic active hepatitis

2021

981. The Model for End Stage Liver Disease (MELD) score includes which of the following variables ?
1. Serum bilirubin
2. Serum albumin
3. Serum creatinine
4. International Normalized Ratio (INR)

Select the correct answer using the code given below :
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2021

982. Which of the following are causes of GnRH dependent precocious puberty ?
1. Constitutional
2. Tubercular Encephalitis
3. McCune-Albright syndrome
4. Primary hypothyroidism

Select the correct answer using the code given below :
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4

NODIA

1007. Which parenteral iron preparation does not cause anaphylaxis on intravenous administration?
(a) Iron dextran
(b) Iron sorbitol
(c) Iron fumerate
(d) Iron sucrose

2010

1008. The following drugs can cause osteoporosis, except
(a) GnRH analogue
(b) danazol
(c) corticosteroid
(d) mifepristone

2010

1009. The causes of hypokalemia include the following except
(a) Tamoxifen therapy
(b) ACTH producing tumors
(c) Non-bilious vomiting
(d) Diabetic ketoacidosis

2009

1010. What is the best and most sensitive investigation for hypothyroidism?
(a) TSH levels
(b) TRH levels
(c) T_3, T_4 levels
(d) Radioactive I_2 uptake

2009

1011. O_2 (Oxygen) dissociation curve is shifted to the right in the following except
(a) Rise in temperature
(b) Hypercapnia
(c) Raised 2,3 DPG level
(d) Metabolic alkalosis

2009

1012. Folic acid deficiency is characterized by the following features except
(a) Macropolycytes
(b) Hyperpigmentation of neutrophils
(c) Microcytes
(d) Howell-Jolly bodies

2009

****

Click Here to Buy book on Amazon

(b) Low serum sodium
(c) High plasma osmolality
(d) Urinary sodium not minimally low

2009

955. With regard to vitiligo, which one of the following is not correct ?
(a) Generalized vitiligo is often symmetrical
(b) Trauma and sunburn may precipitate vitiligo
(c) It is a congenital condition
(d) Focal areas of melanocyte loss are observed

2009

956. The following diseases are characterized by bullous eruptions except :
(a) Porphyria cutanea tarda
(b) Variegate porphyria
(c) Dermatitis herpetiformis
(d) Lichen planus

2009

957. Which one of the following features differentiates lepromatous leprosy from tuberculoid leprosy ?
(a) Absence of infectivity of affected patients
(b) Organisms are scanty in number
(c) Blood-borne spread from the dermis throughout the body
(d) Anaesthetic hypo pigmented skin macules and plaques

2009

958. Recurrent painful orogenital ulcers with arthritis is most likely due to
(a) Gonorrhea
(b) Syphilis
(c) Reiter's syndrome
(d) Behcet's syndrome

2009

959. Which one of the following is a characteristic feature of drug induced lupus ?
(a) Antihistone antibodies
(b) Anti Ro antibodies
(c) Anti La antibodies
(d) Anti ds DNA antibodies

2009

960. What is the most common histological type of nephritis seen in systemic lupus erythematosis (SLE) ?
(a) Mesangial
(b) Focal proliferative
(c) Diffuse proliferative
(d) Membranous

2009

961. The following modes of therapy may be useful for treatment of obsessive compulsive disorder except :
(a) Fluoxetine
(b) Clomipramine
(c) Behaviour therapy
(d) Electroconvulsive therapy

2009

NODIA

962. Which one of the following conditions is not correct in case of bulimia nervosa ?
(a) Recurrent bouts of binge eating
(b) Lack of self-control over eating during binges
(c) Self-induced vomiting or dieting after binge
(d) Weight gain

2009

963. Fear of contamination, counting behaviours, and having to check and recheck are features characteristic of
(a) Panic attacks
(b) Agoraphobia
(c) Obsessive-compulsive disorder
(d) Generalized anxiety disorder

2009

964. Which one of the following definitions best fits the term enthesitis ?
(a) Inflammation at the site of tendinous or ligamentous insertion into bone
(b) Inflammation of the periarticular membrane lining the joint capsule
(c) Inflammation of a sac-like cavity near a joint that decreases friction
(d) A palpable vibratory or crackling sensation elicited with joint motion

2009

965. Which one of the following is the most common site for a fracture associated with osteoporosis ?
(a) Femur
(b) Hip
(c) Radius
(d) Vertebra

2009

966. A twenty-year-old male is presented with end stage renal failure. Since 13 years of age, he has had progressive renal insufficiency initially with episodes of painless haematuria. He also has

to the carotid area and the diminished or single S2 (from reduced movement of the calcified valve) further support the diagnosis. Patients typically present with exertion al dyspnea, angina, and possible syncope due to obstructed outflow from the left ventricle.

7. (d) CHA_2DS_2-VASc
The CHA_2DS_2-VASc scoring system evaluates stroke risk in atrial fibrillation (AF) patients without significant valvular disease. It assigns points for Congestive heart failure, Hypertension, Age ≥75 (doubled), Diabetes, Stroke/TIA/thromboembolism (doubled), Vascular disease, Age 65–74, and female Sex category. A higher score correlates with greater stroke risk, guiding decisions on anticoagulation therapy. HAS-BLED, on the other hand, gauges bleeding risk, and CURB-65 is for pneumonia severity. AMT-4 is an abbreviated mental test, not related to AF stroke risk.

8. (a) 1 and 2 only
Pulmonary embolism (PE) often presents with sudden, unexplained dyspnea, making it a top consideration when patients have acute breathlessness with no clear cause. Additionally, when conditions such as heart failure or pneumonia fail to improve under appropriate treatment, an undiagnosed PE should be suspected. However, in patients with a high clinical pretest probability of PE, diagnostic imaging (e.g., CT pulmonary angiography) is generally indicated without relying solely on D-dimer. D-dimer testing is used primarily when the clinical probability is low or moderate.

9. (d) 1, 2 and 3
Light's criteria define exudative effusions. If any one of the following is met, the fluid is considered exudative: (1) Pleural fluid protein to serum protein ratio 0.5, (2) Pleural fluid LDH to serum LDH ratio 0.6, or (3) Pleural fluid LDH two-thirds the upper limit of normal serum LDH. These criteria help differentiate exudates (often due to infections, malignancies, inflammatory processes) from transudates (commonly linked to heart failure or cirrhosis).

10. (b) 1, 3 and 4
Clubbing typically presents as a symmetric enlargement of the distal segments of fingers (and can also affect toes), caused by proliferating connective tissue. Hence, the statement claiming it does not involve the toes is incorrect. Clubbing can be associated with a range of conditions, including lung cancer, bronchiectasis, cystic fibrosis, and congenital heart disease. When the underlying cause is corrected, such as via lung transplantation in certain cystic fibrosis patients, the clubbing may diminish over time.

11. (d) 1, 2 and 3
Löfgren syndrome is a classic acute form of sarcoidosis, frequently seen in young women, marked by erythema nodosum, bilateral hilar lymphadenopathy, fever, and arthritis/arthralgias. Uveitis can also be part of this syndrome, reflecting multisystem inflammatory involvement. Its acute onset and higher prevalence in females set it apart from more chronic forms of sarcoidosis. Recognition of Löfgren syndrome is important, as it often has a better prognosis and may spontaneously resolve without extensive therapy.

12. (d) Exercise capacity
The BODE Index in COPD evaluates four domains: Body mass index (B), the degree of airflow Obstruction (O), Dyspnea (D) as measured by the MMRC scale, and Exercise capacity (E). The six-minute walk test (6MWT) is used to measure exercise tolerance, reflecting how well a patient can perform physically despite compromised pulmonary function. A shorter distance walked usually corresponds to poorer exercise capacity, indicating worse prognosis. Thus, the 6MWT result is central to the E component in BODE.

13. (b) 1, 3 and 4 (Hypoxia, Hyperglycemia, Reduced serum albumin)
Acute pancreatitis can trigger systemic inflammation and respiratory compromise, often manifesting as hypoxia. Hyperglycemia occurs if the pancreatic endocrine cells are temporarily or permanently damaged, impairing insulin

Downloaded from www.pdf.tube

CHAPTER 01

GENERAL MEDICINE (CORE SYSTEMS)

1. (a) Right atrial pressure
The jugular venous pulse (JVP) directly reflects right atrial and central venous pressures, since the internal jugular vein communicates with the right atrium without any intervening valves. Factors that raise right atrial pressure (e.g., fluid overload, right heart failure) will elevate the JVP. Conversely, decreases in right atrial pressure lower the JVP. Thus, right atrial pressure is the key determinant of JVP height.

2. (a) SVC and RA (Superior Vena Cava and Right Atrium)
The sinoatrial (SA) node, known as the natural pacemaker of the heart, lies in the right atrium at the junction where the superior vena cava (SVC) enters. Its location allows it to generate regular impulses that spread through the atria, triggering coordinated atrial contraction and ultimately dictating normal heart rhythm. The right atrium's structure and blood supply support this crucial pacemaker function, ensuring the heartbeat originates from this strategic anatomical site.

3. (d) 1, 2 and 3 (Beri-beri, Severe anaemia, Thyrotoxicosis)
High-output heart failure arises when cardiac output is elevated but still inadequate to meet the body's metabolic needs. Beriberi (thiamine deficiency) impairs cellular energy use and leads to vasodilation, raising cardiac demand. Severe anemia reduces oxygen-carrying capacity, forcing the heart to pump harder. Thyrotoxicosis accelerates metabolism, again requiring increased cardiac output. In each condition, the body's demands are abnormally high, overburdening the heart even though it is contracting vigorously, resulting in heart failure symptoms.

4. (c) LBBB (Left Bundle Branch Block)
Normally, the second heart sound (S2) is composed of aortic (A2) and pulmonary (P2) components. In reverse (paradoxical) splitting, P2 occurs before A2, so the split narrows on inspiration and widens on expiration—opposite of normal. This typically happens when left ventricular activation or ejection is delayed, as in left bundle branch block (LBBB). The delayed closure of the aortic valve relative to the pulmonary valve leads to this reversed pattern of S2 splitting.

5. (a) 1, 2 and 3 (Chorea, Erythema Marginatum, Subcutaneous Nodules)
Traditional major Jones criteria for acute rheumatic fever include carditis, polyarthritis, chorea, erythema marginatum, and subcutaneous nodules. Although polyarthritis is a major criterion, simple polyarthralgia (joint pains without clear inflammatory signs) is not classified as a major one. Chorea (Sydenham's chorea) and erythema marginatum are pathognomonic features, while subcutaneous nodules are less common but remain on the major criteria list. Recognition of these helps guide diagnosis and management of rheumatic fever.

6. (c) Aortic stenosis
A loud, harsh, crescendo-decrescendo (diamond-shaped) systolic murmur heard in the right second intercostal space radiating to the carotids is classic for aortic stenosis. In older adults, it often results from calcific degeneration of the aortic valve. The murmur's transmission

NODIA

Hepatic encephalopathy arises largely from elevated ammonia and other toxins produced by gut bacteria. Non-absorbable antibiotics, such as rifaximin or neomycin, reduce gut flora responsible for ammonia production without significant systemic absorption. By lowering ammonia levels, they help prevent or mitigate encephalopathic episodes when combined with lactulose. In contrast, tenofovir, telbivudine, sofosbuvir, and velpatasvir are antiviral agents, while levofloxacin and clarithromycin are more readily absorbed systemically and used for other specific infections.

21. (b) 1 and 2 only
A low SAAG (<1.1 g/dL) indicates that ascites is not primarily due to portal hypertension. Instead, it typically arises from infection (e.g., tuberculosis), malignancy (e.g., peritoneal carcinomatosis), or other exudative processes. By contrast, high SAAG (≥1.1 g/dL) suggests portal hypertension, such as in cirrhosis, Budd-Chiari syndrome, or cardiac ascites. Classifying ascitic fluid by SAAG helps clinicians rapidly narrow down the probable etiology and guide further investigations or treatment strategies.

22. (c) Achalasia cardia
In achalasia cardia, failure of the lower esophageal sphincter (LES) to relax results in a bird's beak or tapering appearance on barium swallow. Over time, the esophagus above the LES becomes markedly dilated, producing the classic sigmoid shape in advanced cases. Patients present with progressive dysphagia to solids and liquids, regurgitation, and sometimes weight loss. Manometry confirms high resting LES pressure and incomplete relaxation. Treatment often involves endoscopic balloon dilatation or surgical myotomy.

23. (a) B, F, G
B: Hematuria together with F: Red cell casts characterizes a glomerular source of bleeding (G: Glomerular bleeding). RBC casts specifically implicate an origin within the glomeruli or renal tubules. By contrast, myoglobinuria (A) shows a positive dipstick test but no RBCs on microscopy (E) and is linked to rhabdomyolysis (I). Hemoglobinuria (C) also typically lacks intact RBCs on microscopy, pointing to intravascular hemolysis (H). Thus B, F, G is the correctly aligned triplet.

24. (a) 1 and 2 only
Anti-GBM disease (Goodpasture syndrome) is a rare autoimmune disorder characterized by rapidly progressive glomerulonephritis, sometimes accompanied by pulmonary hemorrhage if alveolar basement membranes are also targeted. Pathogenic antibodies attack the α3 chain of type IV collagen found predominantly in glomerular and alveolar basement membranes. Retinal involvement is not a feature of classic anti-GBM disease, so references to retinal hemorrhage are incorrect in this condition. Consequently, only statements 1 and 2 are correct.

25. (c) 2, 3 and 4 only
Poor prognostic factors in glomerular diseases typically include sustained hypertension, severe or persistent proteinuria (often >3–3.5 g/day), and elevated serum creatinine at diagnosis. These findings suggest active disease and significant renal impairment, both of which predict a worse outcome if not controlled. Female sex alone is not considered a negative prognostic factor; male sex often carries a slightly worse prognosis in certain nephropathies. Careful blood pressure control and reduction in proteinuria are key to improving outcomes.

26. (b) 1, 2 and 4
A renal biopsy is indicated in chronic kidney disease (CKD) of unclear cause, in acute or chronic nephritic syndrome to determine underlying pathology, and to assess unexplained dysfunction in a renal transplant. Typically, uncontrolled severe hypertension is a relative contraindication rather than an indication, as severe elevations in blood pressure increase bleeding risk. Before biopsy, blood pressure and coagulation must be stabilized. Identifying specific histopathological findings often guides targeted therapy and prognosis.

Click Here to Buy book on Amazon

autosomal recessive) can also cause progressive neuropsychiatric decline. Punch-drunk syndrome (chronic traumatic encephalopathy) is linked to repetitive head injuries (e.g., in boxers or American football players) rather than a genetic defect.

74. (d) 1, 2 and 3
Classic mood stabilizers include lithium, valproate (valproic acid), and lamotrigine, among others. Lithium has long been used for both acute mania and prophylaxis in bipolar disorder, while valproate and lamotrigine also serve critical roles in preventing mood episodes. Other agents (e.g., carbamazepine) can be used. Combining therapy decisions often depends on the polarity of symptoms (manic vs. depressive), side-effect profiles, and comorbidities.

75. (b) 1, 2 and 4
After a meal (postprandial), insulin rises, facilitating glucose uptake into muscle and adipose tissue (1). Skeletal muscle is a major site of glucose disposal under insulin influence (2). The brain does not require insulin for glucose uptake, making statement (3) incorrect. During exercise, glucagon typically increases to maintain blood glucose, promoting glycogenolysis and gluconeogenesis (4).

76. (c) 1 and 2 (Insulin and Amylin)
Pancreatic beta cells secrete both insulin (the main anabolic hormone for glucose uptake) and amylin (also called islet amyloid polypeptide), which helps modulate gastric emptying and satiety. Alpha cells produce glucagon, and delta cells secrete somatostatin. Hence, only insulin and amylin are synthesized in beta cells.

77. (b) 1, 2 and 4
Immediate hyperkalemia management includes IV calcium gluconate (to stabilize the cardiac membrane), insulin with glucose (to drive potassium intracellularly), and sometimes IV sodium bicarbonate if acidosis is present. Nebulized salbutamol also helps shift potassium intracellularly, but ipratropium bromide is not typically employed for this purpose. Hence, 1, 2, and 4 are correct interventions for acute hyperkalemia.

78. (b) Hyperkalemia
Salbutamol (albuterol) when given by nebulization stimulates β_2-adrenergic receptors, promoting potassium movement into cells and reducing serum potassium levels. Although its effect can be modest compared to insulin/dextrose, salbutamol can be an adjunct in acute hyperkalemia. It does not correct sodium or magnesium disturbances in this manner.

79. (d) athlete's heart
In athlete's heart, there is physiological hypertrophy of the left ventricle, leading to a thickened ventricular wall; however, diastolic function remains normal due to preserved ventricular compliance. In contrast, hypertrophic cardiomyopathy (HCM) usually entails impaired filling (i.e., diastolic dysfunction). Restrictive cardiomyopathy and endomyocardial fibrosis also produce diastolic abnormalities. Thus, only athlete's heart matches the description of a thickened ventricle with normal diastolic function.

NODIA

80. (c) 1, 3 and 4
Paradoxical splitting of S2 occurs when aortic valve closure is delayed relative to pulmonic valve closure, so that the split actually becomes more pronounced on expiration rather than inspiration. Severe aortic stenosis (1) slows left ventricular ejection and delays A2. Right ventricular pacing (3) can mimic left bundle-branch delay, prolonging left ventricular ejection. Hypertrophic obstructive cardiomyopathy (4) also impedes left ventricular outflow, delaying A2. Right bundle branch block (2) usually produces a different, wide splitting pattern rather than paradoxical.

81. (c) tricuspid regurgitation
A systolic murmur that is best heard at the lower left sternal border and intensifies on inspiration (Carvallo's sign) classically indicates tricuspid regurgitation. The prominent 'cv' wave in the jugular venous pulse arises from the regurgitation of blood back into the right atrium

(innervated by CN VI) and superior oblique (innervated by CN IV). These pull the eye down and out. Because the third nerve normally controls most other eye movements and levator palpebrae superioris, patients may also present with ptosis (eyelid droop) and a dilated pupil if parasympathetic fibers are involved.

35. (d) 1, 2, 3 and 4
Cluster headaches are short-lasting but extremely painful headaches that recur in clusters—often at the same time over several weeks. The pain is unilateral, periorbital, and can last from 15 to 180 minutes (30–90 is typical). Prominent autonomic symptoms like ipsilateral lacrimation, nasal congestion, and conjunctival injection frequently accompany the pain. Subcutaneous sumatriptan or high-flow oxygen are effective acute treatments. All four statements accurately describe cluster headaches.

36. (c) Medication overuse headache
Medication overuse headache (rebound headache) can occur when acute headache medications—especially triptans, analgesics, or combination drugs—are used excessively. Patients may have a history of primary headache such as migraine that becomes refractory, with near-daily or daily headaches. Overuse of sumatriptan or other abortive therapies paradoxically perpetuates the headache cycle. The key clue is daily or near-daily triptan use over weeks.

37. (b) 1, 2, 3 and 4
Seizures can be provoked by multiple potential triggers. Flickering lights (photosensitive epilepsy), illicit or recreational drugs (e.g., stimulants, alcohol withdrawal), non-compliance with prescribed antiepileptics (leading to subtherapeutic levels), and sleep deprivation are all well-recognized precipitants. Identifying and avoiding these triggers is vital in seizure management, alongside appropriate medication adherence.

38. (a) Temporal artery biopsy
Elderly patients presenting with headache localized to the temporal area, jaw claudication (pain on chewing), and elevated inflammatory markers should be evaluated for Giant Cell (Temporal) Arteritis. The gold standard diagnostic test is a temporal artery biopsy, revealing granulomatous inflammation. Delay in diagnosis can result in permanent vision loss. Prompt high-dose corticosteroids are crucial if suspicion is high.

39. (d) Chronic Lymphocytic Leukemia
Rai and Binet are the classic staging methods for Chronic Lymphocytic Leukemia (CLL). They stratify disease severity based on lymphocytosis, presence of lymphadenopathy, hepatosplenomegaly, anemia, and thrombocytopenia. Rai staging is commonly used in the U.S., while Binet staging is more prevalent in Europe. These systems help guide treatment decisions and prognostication for CLL patients.

40. (a) Mycosis fungoides
Mycosis fungoides is a cutaneous T-cell lymphoma that may masquerade as chronic, resistant eczematous or psoriasiform rashes for years before diagnosis. Over time, it can progress from patches/plaques to more infiltrative lesions or even tumor-stage disease. Diagnosis often requires repeated skin biopsies, showing characteristic Sezary or Lutzner cells. Prompt recognition can improve management and delay progression.

NODIA

41. (a) Dabigatran
Dabigatran etexilate is a direct thrombin inhibitor and is administered orally. Heparin (unfractionated) is given parenterally; low molecular weight heparins (e.g., enoxaparin) are given subcutaneously. Fondaparinux is a synthetic pentasaccharide also given parenterally. Bivalirudin is administered intravenously. Dabigatran's oral availability and predictable pharmacokinetics allow for fixed dosing without routine lab monitoring in most patients, contrasting traditional vitamin K antagonists like warfarin.

42. (a) Prednisolone

tricuspid regurgitation. In severe tricuspid regurgitation, the right atrium receives a large reflux of blood during systole, creating a pronounced 'v wave' that can merge with the 'c wave'—sometimes referred to as a 'cv wave.' The jugular venous pulse typically shows this giant systolic wave, along with a more prominent or rapid y descent, not a blunted one. Hence, the correct description is that the v and c waves merge.

89. (c) Janeway's lesions
In infective endocarditis, Janeway's lesions (painless erythematous lesions on palms and soles) are considered part of the vascular phenomena—representing septic microemboli and vascular damage. Osler's nodes and glomerulonephritis reflect immune-complex (immunologic) phenomena, while Roth's spots (retinal hemorrhages) also represent an immunologic or embolic phenomenon classified as a minor criterion. Hence, among these options, only Janeway's lesions are counted under the vascular phenomena category in the Duke criteria.

90. (b) functional residual capacity
Functional residual capacity (FRC) is the volume of air that remains in the lungs at the end of a normal, unforced expiration. It is the sum of residual volume (RV) plus expiratory reserve volume (ERV). Residual volume (RV) is the air left in the lungs after a maximal exhalation, and vital capacity refers to the maximum volume that can be exhaled after a full inspiration. Expiratory residual volume is not a standard pulmonary term.

91. (a) urea breath test
To verify eradication of Helicobacter pylori shortly after treatment, the urea breath test is preferred because it becomes negative soon after successful therapy. Stool antigen testing is also used, but the 13C (or 14C) urea breath test is often the most sensitive and specific for early follow-up. Serology remains positive for many months even after eradication, so it is not useful to confirm cure. Rapid urease testing generally requires endoscopy-based samples and is less common for post-treatment follow-up.

92. (a) duodenum
Zollinger-Ellison syndrome (ZES) is caused by gastrin-secreting tumors (gastrinomas) leading to acid hypersecretion. While these tumors often originate in the pancreas, the most frequent extra-pancreatic location is the duodenum. Gastrinomas here cause persistent acid production, resulting in recurrent peptic ulcers. Although they may spread to the liver (common site for metastasis), the duodenum is recognized as the most common non-pancreatic primary site in ZES.

93. (a) hypovolemic shock resulting from third space loss
In severe acute pancreatitis, inflammatory mediators increase vascular permeability and fluid leaks into the retroperitoneum (the third space). This leads to significant intravascular volume depletion and resultant hypovolemic shock, which is the most common early hemodynamic complication. While infected necrosis can cause sepsis (and septic shock), that typically arises later. Cardiogenic shock is less common unless there is pre-existing heart disease or a severe systemic inflammatory response. Abdominal compartment syndrome may occur but is not the most frequent cause of shock.

94. (a) Escherichia coli
Spontaneous bacterial peritonitis (SBP), typically occurring in cirrhotic patients with ascites, is most commonly caused by gram-negative enteric organisms. Escherichia coli tops the list, followed by Klebsiella and other gut flora. Enterococcus species and staphylococci occur less frequently but can be seen in particular hospital settings or certain risk groups. Streptococcus viridans is less commonly implicated compared to E. coli. Hence, E. coli remains the most likely pathogen.

95. (c) 1, 3 and 4
Typical celiac workup includes demonstration of specific serologies (IgA antiendomysial and anti-tTG) plus characteristic small-bowel biopsy changes (villous atrophy, crypt hyperplasia, and increased intraepithelial lymphocytes). While

Downloaded from www.pdf.tube

coronary artery disease (and/or the elderly), high starting doses can precipitate ischemic events, so it is standard practice to begin with a low dose and titrate carefully, making (4) incorrect.

50. (d) Semaglutide
Semaglutide is a glucagon-like peptide-1 (GLP-1) receptor agonist primarily administered as a once-weekly subcutaneous injection (though an oral form also exists for certain regimens). Pioglitazone (a thiazolidinedione), metformin (a biguanide), and sitagliptin (a DPP-4 inhibitor) are all given orally. Injectable GLP-1 agonists are especially useful for glycemic control and weight management.

51. (b) 1, 2 and 4
Key hallmarks of diabetic retinopathy visible on fundus exam are microaneurysms (the earliest sign), dot-and-blot hemorrhages in the deeper retinal layers, and neovascularization in proliferative disease. Retinal thickening (macular edema) is typically confirmed by optical coherence tomography (OCT) rather than directly on the routine ophthalmoscopic exam. Thus, microaneurysms (1), dot-and-blot hemorrhages (2), and neovascularization (4) form the classic triad on exam findings.

52. (a) Porphyrias
Porphyrias are a group of metabolic disorders resulting from specific enzymatic defects in the heme synthesis pathway. Depending on the enzyme involved, patients may present with neurovisceral symptoms, photosensitivity, or both. Myelodysplastic syndromes, hemophilias, and plasma cell dyscrasias (e.g., multiple myeloma) involve different pathophysiologies and do not arise from heme biosynthetic enzyme defects.

53. (d) Ezetimibe
Ezetimibe selectively inhibits the Niemann-Pick C1-like 1 (NPC1L1) transporter on intestinal enterocytes, preventing cholesterol uptake from the gut lumen. It reduces LDL-cholesterol further when combined with a statin. Atorvastatin (a statin) lowers cholesterol primarily by inhibiting HMG-CoA reductase in the liver. Fenofibrate reduces triglycerides by activating PPAR-α, and metformin is used primarily in type 2 diabetes to reduce hepatic glucose output.

54. (c) Intravenous infusion of normal saline
Aggressive hydration with IV normal saline is the first and most crucial step in severe hypercalcemia management. It corrects volume depletion and improves renal calcium excretion. Once the patient is adequately rehydrated, additional measures like IV bisphosphonates (e.g., pamidronate or zoledronic acid) are given to reduce bone resorption. Loop diuretics may be used cautiously after volume repletion if needed. Hemodialysis is reserved for refractory or life-threatening cases.

55. (b) 1, 2 and 4
A common formula for serum osmolality is:
Osmolality $\approx 2 \times [Na^+ (mEq/L)] + (Glucose\ mg/dL \div 18) + (BUN\ mg/dL \div 2.8)$.
Hence, sodium (1), glucose (2), and blood urea nitrogen (4) are the key laboratory values. Calcium (3) is not included in the standard calculation of serum osmolality.

56. (b) Present as large ecchymosis with irregular shapes
Purpura fulminans is a life-threatening hematologic emergency often triggered by severe infections (e.g., meningococcemia) or disseminated intravascular coagulation, leading to widespread vascular thromboses and hemorrhagic infarctions in the skin. Clinically, it appears as large, irregular, hemorrhagic lesions (ecchymoses) that can progress to necrosis. It is not simply non-hemorrhagic bullae, is not purely autoimmune, and asplenia is a risk factor for overwhelming sepsis rather than providing protection.

57. (c) Basal cell carcinoma
Basal cell carcinoma (BCC) typically arises in sun-exposed areas, especially in older individuals. The lesions often have a pearly appearance with telangiectatic vessels on the surface and a rolled edge. Although actinic keratoses can occur in sun-damaged skin, they

NODIA

typically appear as rough scaly papules rather than pearly nodules. Squamous cell carcinoma and melanoma each have distinct clinical and dermoscopic features, making the described pearly papule with telangiectasia classic for BCC.

58. (d) Type 4 hypersensitivity
Allergic contact dermatitis (e.g., poison ivy dermatitis, nickel allergy) is mediated by delayed-type (Type IV) hypersensitivity. T-lymphocytes recognize antigens presented on skin cells, leading to inflammation and the characteristic eczematous rash. Type I hypersensitivity (immediate) involves IgE and mast cells (as in anaphylaxis). Type II (cytotoxic) and Type III (immune complex) mechanisms are different immunopathologic processes.

59. (c) Telogen effluvium
Telogen effluvium is a reversible, non-scarring alopecia characterized by diffuse hair shedding, often triggered by stressors such as acute illness, childbirth, or major surgery. Because the hair follicles are not permanently damaged, regrowth typically occurs once the inciting factor is corrected. Linear scleroderma, cutaneous metastases, and sarcoidosis can all produce scarring (cicatricial) alopecia, where hair follicles are destroyed.

60. (d) 2, 3 and 4
The female Sarcoptes scabiei burrows into the skin and primarily spreads the infestation; the short-lived male usually does not cause active transmission. Hence, statement (1) is incorrect. Norwegian (crusted) scabies occurs in immuno compromised or debilitated patients (2), 5% permethrin cream is standard therapy (3), and intensely pruritic lesions that worsen at night or after a hot bath are classic (4).

61. (b) Osteoarthritis
Heberden's nodes are bony outgrowths occurring at the distal interphalangeal (DIP) joints, classically seen in osteoarthritis of the hands. Bouchard's nodes affect the proximal interphalangeal (PIP) joints. In rheumatoid arthritis, joint involvement typically spares the DIP joints, while psoriatic arthritis or gout can affect various joints but do not specifically produce Heberden's nodes.

62. (c) Glucocorticoids
Prolonged corticosteroid therapy can cause steroid-induced myopathy, typically presenting with proximal muscle weakness. Patients report difficulty climbing stairs, rising from a chair, or raising their arms. This does not typically cause significant muscle pain; rather, it is a painless, progressive weakness. Acetaminophen and antihistamines (e.g., fexofenadine) do not cause such myopathy, and metformin is used for diabetes and does not commonly produce muscle weakness in this pattern.

63. (c) Cyclophosphamide
Cyclophosphamide is an alkylating agent used in various autoimmune and malignant conditions. Its metabolite, acrolein, can irritate the bladder epithelium, causing hemorrhagic cystitis. Adequate hydration and co-administration of mesna (2-mercaptoethane sulfonate sodium) help mitigate this toxicity. Leflunomide, mycophenolate, and methotrexate have different toxicity profiles and are not typically associated with hemorrhagic cystitis.

64. (c) Ankylosing Spondylitis
Schober's test assesses lumbar flexion, crucial for diagnosing and monitoring ankylosing spondylitis, a seronegative spondyloarthropathy affecting the spine and sacroiliac joints. Limited lumbar mobility is a classic hallmark. The patient stands erect, and two skin marks are placed (usually 10 cm apart). On forward flexion, if the distance does not increase sufficiently, it suggests restricted spinal mobility. Rheumatoid arthritis, lupus, and psoriasis have different clinical evaluations.

65. (b) Long and needle-like
In gout, monosodium urate crystals appear as needle-shaped, negatively birefringent crystals when viewed under polarized light. They often demonstrate yellow coloration when aligned parallel to the axis of polarization. This is in contrast to calcium pyrophosphate crystals (as

Click Here to Buy book on Amazon

in pseudogout), which tend to be rhomboid and positively birefringent.

66. (a) Rheumatoid arthritis
Anti-citrullinated peptide antibody (ACPA or anti-CCP) has high specificity for rheumatoid arthritis and often appears early in the disease course. It may be present even when rheumatoid factor is negative. Its strong association aids in diagnosing RA, predicting erosive disease, and guiding early aggressive therapy. Sjögren's syndrome is linked to anti-SSA/SSB, scleroderma involves anti-Scl-70 or anti centromere, and lupus is linked to anti-dsDNA, anti-Smith, etc.

67. (c) Anti-histone antibody
Drug-induced lupus (e.g., from hydralazine, procainamide, isoniazid) frequently features anti-histone antibodies, which are present in a high percentage of such cases. The clinical picture resembles systemic lupus but typically lacks major organ involvement such as renal or CNS disease. Anti-centromere is associated with limited scleroderma (CREST), anti-Jo-1 with polymyositis/dermatomyositis, and anti-RNP with mixed connective tissue disease.

68. (d) 2, 3 and 4
Lithium is associated with weight gain (not loss), so (1) is incorrect. It can provoke hypothyroidism (2) and sometimes hyperparathyroidism, causing elevated PTH levels (3). Lithium also impairs renal concentrating ability, leading to nephrogenic diabetes insipidus (4). These effects underscore the need for periodic monitoring of thyroid function, calcium, and renal function in patients on long-term lithium therapy.

69. (b) 1, 2 and 4
Phenelzine and tranylcypromine are classic, nonselective MAO inhibitors, while moclobemide is a reversible inhibitor of MAO-A. These agents elevate synaptic monoamines by preventing their breakdown. Dosulepin (dothiepin) is a tricyclic antidepressant, which works by inhibiting norepinephrine and serotonin reuptake but does not block monoamine oxidase. Therefore, (1), (2), and (4) are MAO inhibitors, while (3) is not.

70. (c) 1, 3 and 4 (Escitalopram, Fluoxetine, Sertraline)
Selective serotonin reuptake inhibitors (SSRIs) increase the level of serotonin in the synaptic cleft by blocking its reabsorption into presynaptic neurons. Escitalopram, fluoxetine, and sertraline are all classic SSRIs. Amitriptyline is a tricyclic antidepressant (TCA), which, while it does affect serotonin, also strongly blocks norepinephrine reuptake and has additional receptor effects that distinguish it from SSRIs.

NODIA

71. (a) 1, 2 and 3 (Auditory hallucinations, Thought broadcasting, Delusional perceptions)
Schneider's First Rank Symptoms of schizophrenia include prominent auditory hallucinations (especially discussing or commenting voices), delusions of control, thought broadcasting, thought insertion/withdrawal, and delusional perception. Delirium is an acute confusional state with altered consciousness, not classified under First Rank Symptoms of schizophrenia. Recognizing these hallmark symptoms is important in diagnosing and differentiating schizophrenia from other psychotic or organic disorders.

72. (b) 1, 2 and 4
Wernicke-Korsakoff syndrome is most commonly associated with thiamine (vitamin B1) deficiency in chronic alcoholism but may also occur in prolonged malnutrition, malabsorption, or prolonged vomiting. Its acute triad (Wernicke's) is ophthalmoplegia, ataxia, and confusion; pathology typically shows lesions in mammillary bodies and around the third ventricle. Over time, patients can develop the Korsakoff component with profound memory deficits. Vitamin B12 deficiency is not the culprit here, making statement (3) incorrect.

73. (a) 1, 2 and 3
Certain forms of Alzheimer's disease have an autosomal dominant inheritance (e.g., mutations in APP, PSEN1, PSEN2). Huntington's disease (expanded CAG repeats in the HTT gene) and Wilson's disease (ATP7B gene,

The initial treatment of warm autoimmune hemolytic anemia generally involves high-dose corticosteroids (e.g., prednisone/prednisolone). Steroids reduce autoantibody production and RBC destruction. Rituximab or splenectomy are important second-line options if steroid therapy is insufficient or relapse occurs. Plasmapheresis is less commonly used for warm AIHA unless the situation is life-threatening and other measures have failed. Prompt corticosteroid therapy can often quickly mitigate hemolysis and improve hemoglobin levels.

43. (d) Inadequate renal perfusion due to renal artery stenosis
Secondary hyperaldosteronism arises from activation of the renin-angiotensin-aldosterone system (RAAS) external to the adrenal gland. Reduced renal perfusion—such as in renal artery stenosis—drives up renin release, which in turn stimulates aldosterone secretion. By contrast, an aldosterone-producing adenoma (Conn's syndrome) or bilateral adrenal hyperplasia cause primary hyperaldosteronism. A tumor secreting 11-deoxycorticosterone leads to a different mechanism of mineralocorticoid excess.

44. (c) Riedel's thyroiditis
Riedel's thyroiditis is a rare form of chronic thyroiditis in which extensive fibrosis replaces normal thyroid tissue, making the gland woody, hard, and fixed. Although Hashimoto's thyroiditis also involves lymphocytic infiltration and raises the risk of lymphoma, Riedel's specifically features marked fibrotic invasion extending beyond the thyroid into surrounding structures. This fibrosing process can compress local structures and mimic malignancy. It is sometimes considered part of a systemic IgG4-related fibrosing process.

45. (a) Propranolol
Nonselective β-blockers like propranolol can mask sympathetic warning signs of hypoglycemia (e.g., tachycardia, tremors) and impede glycogenolysis, making hypoglycemia more dangerous in diabetics. Cardioselective β_1-blockers (e.g., metoprolol) are less likely to blunt hypoglycemia awareness but can still pose some risk. ACE inhibitors, ARBs (like telmisartan), and certain diuretics or calcium channel blockers (like amlodipine) are generally preferred if no other contraindications exist.

46. (a) 1, 3 and 4
Cortisol follows a diurnal rhythm, peaking in early morning, making statement (1) correct. In serious stress or illness, cortisol actually rises rather than falling dramatically, so statement (2) is incorrect. Over 90% of circulating cortisol is bound to corticosteroid-binding globulin (CBG) and albumin, supporting (3). Cortisol is the principal glucocorticoid in humans and can also exert some mineralocorticoid effects by binding aldosterone receptors, confirming (4).

47. (a) Parathyroid hormone assay
Bones, stones, abdominal groans classically describes hypercalcemia, most often from hyperparathyroidism. Excess parathyroid hormone causes bone demineralization (bones), kidney stones (stones), and gastrointestinal disturbances (groans). Measurement of PTH is key to confirming primary hyperparathyroidism. Thyroid tests, cortisol levels, and insulin/C-peptide do not directly address hypercalcemia. An elevated PTH in the presence of high serum calcium is diagnostic for hyperparathyroidism.

48. (c) 1, 2 and 4
Propylthiouracil (PTU) can be used in the first trimester of pregnancy or in certain breastfeeding scenarios (1). Surgery is often indicated for large goiters with obstructive symptoms (2). Radioiodine, however, is contraindicated in pregnancy, making (3) incorrect. Carbimazole (and PTU) can cause agranulocytosis as a rare but serious adverse effect (4). Thus, statements 1, 2, and 4 accurately reflect Grave's disease management, while (3) is false.

49. (a) 1, 2 and 3
Levothyroxine (LT4) is the standard treatment for hypothyroidism, usually taken once daily on an empty stomach (1 and 2). The average full replacement dose in healthy adults is approximately 1.6 μg/kg/day (3). In patients with

Downloaded from www.pdf.tube

during systole. Mitral regurgitation classically radiates to the axilla and does not increase with inspiration. Ventricular septal defect is heard best at the left sternal border but does not characteristically vary with respiration.

82. (a) constrictive pericarditis
Kussmaul's sign is an increase in jugular venous pressure on inspiration instead of the normal decrease. It is most often associated with constrictive pericarditis, where a rigid pericardium impairs right ventricular filling. The resulting back-up in venous return becomes more evident during inspiration, raising venous pressure instead of lowering it. While it can occur in some other right-heart pathologies, the classic association is with constrictive pericarditis, not typically with hypertrophic cardiomyopathy, myocardial infarction, or dilated cardiomyopathy.

83. (c) hypertrophic obstructive cardiomyopathy
Although aortic stenosis is typically heard in the right second intercostal space, the maneuver responses reveal hypertrophic obstructive cardiomyopathy (HOCM). The murmur of HOCM diminishes with handgrip (because afterload increases, reducing the outflow gradient) and intensifies with inhalation of amyl nitrite (which lowers afterload, increasing the obstruction). These dynamic changes distinguish it from aortic stenosis, whose murmur usually becomes louder with increased afterload. The location and expiration emphasis confirm a left-sided origin, consistent with HOCM's outflow tract murmur.

84. (c) Roth's spots
Modified Duke criteria have two main major categories: (1) typical organisms in blood culture or persistent positive blood cultures, and (2) evidence of endocardial involvement (echocardiographic findings such as vegetations, abscess, partial dehiscence of prosthetic valve, or new valvular regurgitation). Roth's spots—retinal hemorrhages with pale centers—are one of the peripheral (minor) criteria. They demonstrate embolic or immune-complex phenomena but do not count as major in establishing the diagnosis of infective endocarditis.

85. (c) Giant cell arteritis
Giant cell arteritis (also known as temporal arteritis) primarily involves large and medium-sized arteries, especially the branches of the external carotid artery. Granulomatosis with polyangiitis (Wegener's) and eosinophilic granulomatosis with polyangiitis (Churg-Strauss) mainly involve small vessels, while polyarteritis nodosa affects medium-sized arteries. The hallmark of giant cell arteritis is granulomatous inflammation of large arterial walls, often leading to headaches, visual disturbances, and elevated inflammatory markers in older adults.

86. (a) restrictive lung disease
Restrictive lung diseases are characterized by reduced lung volumes. A decrease in total lung capacity (TLC) below 80% of the predicted value signals the inability of the lungs to fully expand, typical of interstitial fibrosis, pneumoconiosis, or other restrictive conditions. In obstructive lung diseases, TLC is often normal or increased, but airflow is limited. Pulmonary hypertension or pulmonary embolism primarily affect vascular or perfusion components rather than significantly lowering the measured TLC.

87. (a) 1 and 3
In HOCM, reducing left ventricular volume (by decreasing preload) worsens the outflow obstruction and intensifies the murmur (statement 1 is correct). Conversely, increasing LV preload (e.g., via passive leg raising) expands the LV cavity, reducing obstruction and softening the murmur (statement 3 is correct). Decreasing LV afterload actually increases outflow obstruction and increases the murmur, not decreases it, so statement 2 is false. Squatting also increases venous return and afterload, typically softening the murmur, so statement 4 is false.

NODIA

88. (c) V wave and C wave merge
A pansystolic murmur that increases with inspiration (Carvallo's sign) strongly suggests

27. (a) 60 – 89 mL/min/1.73 m^2
According to the KDIGO (Kidney Disease: Improving Global Outcomes) guidelines, CKD is staged by GFR:
1. **Stage 1 :** ≥90 mL/min/1.73 m^2 (with kidney damage markers)
2. **Stage 2 :** 60–89 mL/min/1.73 m^2
3. **Stage 3 a :** 45–59 mL/min/1.73 m^2
4. **Stage 3 b :** 30–44 mL/min/1.73 m^2
5. **Stage 4 :** 15–29 mL/min/1.73 m^2
6. **Stage 5 :** <15 mL/min/1.73 m^2 or on dialysis

Stage 2 suggests mild decrease in GFR along with other markers of renal impairment.

28. (a) 1, 2 and 3
The widely accepted Rotterdam criteria require any two of three findings to diagnose PCOS: (1) Oligo-/anovulation or menstrual irregularities, (2) Clinical or biochemical hyperandrogenism, and (3) Polycystic ovaries on ultrasound. A low BMI (<18.5 kg/m^2) is not a formal diagnostic requirement for PCOS and, in fact, many patients are overweight or obese. The presence of multiple ovarian cysts, irregular cycles, and androgen excess collectively fulfill the typical triad in PCOS.

29. (d) 1, 2, 3 and 4
All four listed conditions can present with hypocomplementemia and nephritic-range proteinuria. Systemic lupus erythematosus (SLE) commonly lowers complement levels via immune complex deposition. Post-infectious glomerulonephritis (especially post-streptococcal) often causes low C3. Infective endocarditis can lead to immune complex–mediated glomerulonephritis with low complement. Mesangiocapillary (membranoproliferative) GN similarly involves immune complexes and complement activation. Each of these diseases can therefore be implicated when low serum complement and nephritic findings are identified.

30. (a) 1, 2, 3 and 4
Parkinsonism typically manifests with a masked facial expression (hypomimia), reduced voice volume or dysphonia (hypophonia), festinating (shuffling, hurried) gait, and cogwheel rigidity on passive limb movement. These cardinal features emerge from dopamine deficiency within the nigrostriatal pathway. Patients may also exhibit bradykinesia and postural instability. Taken together, 1 (hypomimia), 2 (dysphonia), 3 (festination), and 4 (cogwheel rigidity) reflect hallmark signs of Parkinson's disease.

31. (a) Tremor and rigidity
Extrapyramidal lesions classically produce movement and muscle tone abnormalities such as Parkinsonian tremor (rest tremor) and rigidity (cogwheel or lead pipe). The basal ganglia's role in modulating motor output means its dysfunction leads to characteristic disorders like Parkinson's disease (bradykinesia, tremor, rigidity) or other dyskinesias. Seizures (b), urinary incontinence (c), and direct muscle wasting (d) are not typical presentations of primary extrapyramidal system damage.

32. (b) 1, 2 and 4
Transient Global Amnesia typically features sudden-onset anterograde (and sometimes retrograde) amnesia, with normal consciousness and motor function. Patients cannot form new memories, repeating questions. Episodes often resolve within hours, but they retain a gap in memory for the event itself. Statement 3 is incorrect because consciousness and basic motor functions remain intact. Hence, statements 1, 2, and 4 accurately describe TGA.

33. (c) Parietal lobe
In the visual pathway, fibers carrying information from the upper visual field travel in the lower retina and then pass through the parietal lobe (the dorsal optic radiation). A lesion in this parietal pathway typically leads to a pie on the floor defect—contralateral homonymous lower quadrant anopia. By contrast, lesions in the temporal lobe (Meyer's loop) cause upper quadrant anopia, often called pie in the sky.

34. (a) Downwards and outwards
In an oculomotor nerve (cranial nerve III) palsy, the only extraocular muscles left functioning in the affected eye are the lateral rectus

Click Here to Buy book on Amazon

one normally expects presence of tTG antibodies, in rare cases of selective IgA deficiency, tTG may be absent/negative. Hence absence of tTG antibody (4) can still be encountered in a subset of celiac patients. Statement (2)—absence of reduced villous height—would contradict celiac pathology, so it is wrong. Thus, (1), (3), and under special circumstances (4) are correct.

96. (d) 2, 3 and 4
The mainstay of tumor lysis syndrome management is aggressive intravenous hydration (2) to enhance renal clearance of uric acid, potassium, and phosphate. Rasburicase (3), a recombinant urate oxidase, rapidly lowers serum uric acid. Febuxostat (4) can be used to reduce uric acid formation as an alternative to allopurinol. Although urinary alkalinization (1) was historically used, it is no longer universally recommended because of potential complications like xanthine crystallization. Hence, 2, 3, and 4 remain the most accepted measures.

97. (d) 1, 2 and 3
Focal-onset seizures can sometimes progress (Jacksonian march) along a body part representation in the motor cortex. Todd's paralysis is a transient focal neurological deficit after a seizure, usually seen with focal epilepsy. Epilepsia partialis continua is a rare form of focal status epilepticus with repeated muscle jerks or partial seizures persisting for extended periods. All three phenomena can occur in focal (partial) seizure disorders, thus 1, 2, and 3 are correct.

98. (a) abrupt 3 Hz spike-and-slow wave discharges on EEG
Typical absence seizures (often seen in childhood) are characterized by sudden onset and offset of impaired consciousness, with the hallmark EEG finding: 3 Hz spike-and-slow-wave complexes. There is no postictal confusion (patients immediately resume baseline). They are not generally caused by multifocal structural lesions; rather, they're a generalized seizure type. Typical absence seizures typically respond very well to certain anti-seizure medications (e.g., ethosuximide), making answer (a) the distinguishing feature.

99. (b) 1, 2 and 4
Major contra indications to thrombolysis in acute ischemic stroke include recent serious head injury or intracranial surgery, recent myocardial infarction (particularly within the past 3 months if large), and active or recent significant bleeding (like GI bleeding in the last 3 weeks). Severe hypertension must be controlled before thrombolysis, but a blood pressure of exactly >150/100 mm Hg by itself is not an absolute contraindication—guidelines generally require lowering BP if systolic is >185 or diastolic >110. Hence 1, 2, and 4 are correct.

100. (a) Distal latency is normal in axonal degeneration and prolonged in segmental demyelination.
On nerve conduction studies, segmental demyelination primarily prolongs distal latencies and slows conduction velocity because the myelin sheath is responsible for rapid signal propagation. In pure axonal degeneration, the conduction velocity often remains relatively normal (until very advanced stages) and distal latency is typically within normal limits; however, the amplitude of the compound muscle action potential may be reduced. Prolonged distal latency is a clear hallmark of demyelination rather than axonal loss.

101. (b) Acamprosate
Acamprosate (calcium acetylhomotaurinate) is specifically used in the management of alcohol dependence to reduce cravings and maintain abstinence. It modulates glutamatergic neurotransmission, helping stabilize the chemical imbalance following the cessation of alcohol. Apomorphine and atropine do not play a role in alcohol dependence treatment. Azathioprine is an immunosuppressant with no effect on alcohol cravings. Hence, acamprosate is the standard choice for helping maintain sobriety alongside psychosocial interventions.

102. (b) Tyrosine kinase

Downloaded from www.pdf.tube

131. (a) 1, 2 and 3
An S_3 can be a normal (physiologic) finding in children, young adults, and pregnant women (because of increased cardiac output). Pathologically, it is often associated with left ventricular failure (due to volume overload and reduced LV compliance). Mitral stenosis, however, typically produces a diastolic rumble and an opening snap, not an S_3. Thus, (1), (2), and (3) can generate S_3, while (4) does not.

132. (d) 2, 3 and 4
The PR interval on an ECG runs from the onset of the P wave (which represents atrial depolarization) to the beginning of the QRS complex (ventricular depolarization). Its normal duration is ~0.12–0.20 seconds (statement 2). Prolongation indicates delayed AV nodal conduction (3). A short PR interval is seen in pre-excitation syndromes such as WPW (4). Statement (1) is incomplete/misleading—atrial depolarization is represented by the P wave itself, whereas the PR interval includes atrial depolarization plus AV nodal delay.

133. (c) Cholecystokinin
Cholecystokinin (CCK), released by I-cells in the duodenum in response to fatty meals, triggers gallbladder contraction and stimulates the release of bile. It also relaxes the sphincter of Oddi, allowing bile to enter the duodenum. Secretin primarily stimulates bicarbonate secretion from the pancreas, gastrin promotes gastric acid secretion, and VIP has vasodilatory and other GI effects but does not cause gallbladder contraction.

134. (d) 1, 3 and 4
Acute radiation-induced GI symptoms such as diarrhea can be managed with antidiarrheals like loperamide or codeine (1). Chronic radiation proctocolitis often responds to sucralfate enemas and hyperbaric oxygen therapy (3). Long-term complications can include bowel strictures and fistulae (4). Surgery (2) is not the default treatment of choice but rather a last resort when severe strictures, perforation, or intractable bleeding occurs.

135. (d) 1, 2, 3 and 4
All four are valid observations in clinical jaundice. Generally, scleral icterus becomes evident when total bilirubin exceeds ~2.5–3.0 mg/dL (1). Checking under the tongue is another reliable site for early jaundice (2). Prolonged jaundice sometimes yields a greenish hue on the skin surface as bilirubin oxidizes to biliverdin (3). The sclera's elastin binds bilirubin readily, making them appear yellowish earlier than most tissues (4).

136. (d) Sclerae
Carotenemia (or carotenoderma) causes a yellowish discoloration of the skin—often most notable on palms, soles, and nasolabial folds—but crucially spares the sclera. In contrast, hyperbilirubinemia (jaundice) will typically cause scleral icterus. Thus, if the sclerae remain white, but the skin is yellowish, carotene excess is more likely than true jaundice.

137. (a) Recurrent urinary tract infection in men
The Meares-Stamey (four-glass) test is a specialized diagnostic procedure for evaluating chronic or recurrent prostatitis in men. By sequentially collecting urethral swab, midstream urine, expressed prostatic secretions, and post-prostatic massage urine, one can localize the site of infection (urethra vs. bladder vs. prostate). It is neither used routinely for UTIs in women nor pelvic inflammatory disease.

NODIA

138. (b) Warfarin
Calciphylaxis (calcific uremic arteriolopathy) is a rare, life-threatening condition most often seen in end-stage renal disease. Warfarin use has been noted as a risk factor because it reduces matrix Gla protein (an inhibitor of vascular calcification) by interfering with vitamin K recycling. While phosphate disturbances and certain dialysis issues also play roles, the known association of warfarin with calciphylaxis is stronger than that for calcium channel blockers, phosphate binders, or thiazides.

139. (c) Only three pairs

syndrome involves obesity, retinal dystrophy, polydactyly, and cognitive impairment; Prader-Willi syndrome features hyperphagia, obesity, and hypogonadism but not specifically hyposmia tied to GnRH deficiency; Wallenberg syndrome is a lateral medullary stroke syndrome. Hence, Kallmann syndrome is uniquely associated with GnRH deficiency plus hyposmia.

110. (a) Wolff-Chaikoff effect
The Wolff–Chaikoff effect is the autoregulatory phenomenon in which excess inorganic iodine acutely suppresses thyroid hormone synthesis and release. The gland temporarily halts organification (iodination of tyrosyl residues) when presented with very high iodine concentrations, thereby limiting hormone overproduction. This contrasts with the Jod-Basedow effect, where previously iodine-deficient individuals can experience hyperthyroidism upon sudden iodine repletion. Reverse Wolff-Chaikoff or Jod-Basedow effects are not standard physiological terms, making (a) the correct choice.

111. (c) 1, 2 and 3
Thyroid storm (thyrotoxic crisis) management targets blocking hormone synthesis and release and controlling sympathetic overactivity. Propranolol (1) reduces adrenergic symptoms and peripheral T4-to-T3 conversion. Sodium ipodate (2) similarly impairs the peripheral conversion of T4 to T3. Propylthiouracil (3) inhibits new hormone synthesis and also helps block T4-to-T3 conversion. Liothyronine (4) is synthetic T3 used in severe hypothyroid states, not in hyperthyroidism. Therefore, 1, 2, and 3 are indicated in thyrotoxic crisis.

112. (b) 1 and 2
Myxedema coma is a life-threatening form of severe hypothyroidism requiring prompt thyroid hormone replacement. Liothyronine (T3) (1) can rapidly increase circulating T3 levels, while levothyroxine (T4) (2) provides a sustained reservoir for T3 generation. Combining T3 and T4 in certain protocols can be beneficial, though high-dose IV levothyroxine alone is also common. Carbimazole (3) is an antithyroid agent used for hyperthyroidism, and sodium ipodate (4) also has a role in severe thyrotoxicosis, not in myxedema.

113. (d) Degludec
Insulin degludec is an ultra-long-acting basal insulin with a duration of action that can exceed 42 hours, providing a steady, low-level release to control fasting blood glucose. Insulin glargine typically lasts up to 24 hours. Detemir generally requires once or twice daily dosing. NPH has an intermediate duration. Degludec's pharmacokinetics allow more flexible dosing schedules and a reduced risk of hypoglycemia from peaks, making it particularly suitable for patients requiring very stable basal glucose management.

114. (b) Lactotroph
Among functioning (hormone-secreting) pituitary adenomas, prolactin-producing (lactotroph) adenomas are the most common. Such tumors often present with galactorrhea and amenorrhea in women or hypogonadism in men due to hyperprolactinemia. Somatotroph adenomas (growth hormone-secreting) cause acromegaly or gigantism. Corticotroph adenomas produce excess ACTH (Cushing's disease). Thyrotroph adenomas are much less common. Therefore, lactotroph adenomas predominate in clinical practice.

115. (a) thyrotoxicosis factitia
Thyrotoxicosis factitia (exogenous intake of thyroid hormone) suppresses endogenous thyroid hormone production; hence, the thyroid gland produces little or no thyroglobulin, leading to low serum thyroglobulin levels. In contrast, hyperthyroid states such as Graves' disease, subacute thyroiditis, and toxic multinodular goiter involve excessive thyroid hormone release from the gland itself, thereby elevating thyroglobulin levels. Measuring thyroglobulin helps distinguish factitious ingestion from other causes of hyperthyroidism.

116. (b) He has definitive diagnosis of diabetes mellitus.
Criteria for diagnosing diabetes mellitus include a random plasma glucose ≥200 mg/dL (11.1

Click Here to Buy book on Amazon

mmol/L) in the presence of classic symptoms such as polyuria, polydipsia, or unexplained weight loss. Since this patient's random glucose is 220 mg/dL and he has typical symptoms, he meets the diagnostic threshold. Impaired glucose tolerance or indeterminate status would not apply here because the random level plus symptoms definitively confirm diabetes mellitus.

117. (d) Euglycemic diabetic ketoacidosis may occur during treatment if there is a concurrent illness. SGLT2 inhibitors (e.g., canagliflozin, empagliflozin) block glucose reabsorption in the renal proximal tubules, lowering blood sugar independently of insulin secretion or action. They typically reduce, not increase, blood pressure. Although primarily approved for type 2 diabetes, use in type 1 is off-label and can increase the risk of euglycemic diabetic ketoacidosis (DKA). This euglycemic DKA can occur, particularly during acute illness or reduced food intake, when insulin levels drop but urinary glucose excretion continues, masking typical hyperglycemia.

118. (c) exogenous glucocorticoid use
Exogenous steroid (glucocorticoid) use is often encountered in patients with chronic inflammatory conditions like rheumatoid arthritis. Clinically, they may develop Cushingoid features—moon facies, central obesity, striae, and hypertension. An overnight dexamethasone suppression test revealing very low cortisol and a suppressed ACTH suggests an external source of steroids rather than endogenous hypercortisolism. Normal imaging of the pituitary and adrenals further supports that there is no endogenous tumor (adrenal adenoma or pituitary adenoma).

119. (c) Measure of serum ionized calcium and to administer IV calcium gluconate
Sudden onset muscle cramps, tingling (paresthesias), and carpopedal spasm after thyroidectomy strongly suggest acute hypocalcemia, typically from accidental removal or devascularization of the parathyroid glands. The immediate step is to check the serum (ionized) calcium level and, if low, give intravenous calcium gluconate to relieve symptoms and prevent complications such as tetany or seizures. Methylcobalamin, corticosteroids, or IV bicarbonate do not address the underlying hypocalcemia.

120. (a) Kallmann's syndrome
Kallmann's syndrome is characterized by GnRH deficiency with associated anosmia or hyposmia. Low GnRH release leads to low FSH and LH (hypogonadotropic) and thus inadequate gonadal function (hypogonadism). Klinefelter's (47,XXY) and Turner's (45,X) syndromes involve primary gonadal failure with elevated gonadotropins (hypergonadotropic hypogonadism). Cryptorchidism primarily involves undescended testes but does not inherently cause GnRH deficiency. Kallmann's syndrome remains the classic cause of hypogonadotropic hypogonadism.

NODIA

121. (c) 47 XXY
This presentation suggests Klinefelter's syndrome (47, XXY)—affected males often have testicular dysgenesis with small, firm testes, low testosterone, elevated gonadotropins (FSH, LH), tall stature, and may develop gynecomastia. A 46 XY karyotype is normal male, 45 XO describes Turner's syndrome (phenotypically female), and 21 trisomy is Down syndrome. Klinefelter's typically presents with signs of hypogonadism plus possible learning difficulties and certain body habitus features.

122. (a) 1, 2 and 3
Glimepiride (a sulfonylurea) can promote weight gain by increasing insulin levels and driving glucose into cells. Pioglitazone (a thiazolidinedione) also commonly leads to weight gain, partly through fluid retention and adipose tissue changes. Insulin formulations, including NPH insulin, can cause weight gain by promoting an anabolic state. Sitagliptin (a DPP-4 inhibitor) is generally weight-neutral. Therefore, 1 (Glimepiride), 2 (Pioglitazone), and 3 (NPH insulin) all tend to increase weight.

123. (b) 1 and 2 only

Adiponectin, an anti-inflammatory adipokine, is paradoxically reduced in obesity (Statement 1 true). Orlistat is indeed a reversible pancreatic lipase inhibitor that limits fat absorption (Statement 2 true). Liraglutide (a GLP-1 receptor agonist) actually aids weight loss, not weight gain, in T2DM, so Statement 3 is false. Bariatric surgery guidelines generally require a BMI ≥40, or ≥35 with comorbidities; a threshold of >30 alone is not standard (Statement 4 is inaccurate).

124. (d) 2, 3 and 4
High-turnover malignancies can cause tumor lysis syndrome, releasing large quantities of uric acid. Preventive measures include vigorous IV hydration (2) to maintain renal perfusion and flush out uric acid, rasburicase (3) to break down uric acid enzymatically, and sometimes urine alkalinization (which can be achieved via acetazolamide) (4) to reduce precipitation of uric acid crystals. Probenecid (1) is not commonly used in this acute setting, as it can be unreliable and might promote crystalluria in high uric acid states.

125. (d) Diuretics
Relative erythrocytosis (polycythemia) results from reduced plasma volume rather than an actual increase in red blood cell mass. Diuretic use can cause hemoconcentration by excess fluid loss, producing an artificially elevated hematocrit. High altitude, cardiorespiratory disease, and high-affinity hemoglobins typically cause absolute polycythemia, since in those states the total RBC mass truly increases due to chronic hypoxia or altered oxygen-hemoglobin affinity.

126. (d) 1, 2 and 4
Urine is indeed a good growth medium for bacteria (1). Post-menopausal atrophic changes can predispose to UTI (2). Not all asymptomatic bacteriuria cases warrant antibiotic therapy—only certain groups (e.g., pregnant women or those undergoing urological procedures) require treatment, so (3) is false. Specific strains of E. coli (uropathogenic E. coli) have virulence factors promoting colonization of the urinary tract (4).

127. (d) left main or proximal LAD
ST-segment elevation in lead aVR ≥1 mm—especially when coupled with diffuse ST depressions in other leads—often signifies global myocardial ischemia, most commonly implicating critical stenosis in the left main coronary artery or very proximal left anterior descending (LAD) artery. This pattern can also indicate severe triple vessel disease. In typical right coronary or circumflex occlusions, ST elevations are not isolated to aVR. Thus (d) is the recognized culprit location.

128. (b) Liraglutide
Liraglutide, a GLP-1 receptor agonist, not only improves glycemic control but also helps reduce body weight by decreasing appetite and slowing gastric emptying. In contrast, sulfonylureas (like glimepiride) and insulin typically promote weight gain, while DPP-4 inhibitors (e.g., sitagliptin) are generally considered weight-neutral. Hence, liraglutide is uniquely beneficial for obese type 2 diabetics seeking glycemic control plus weight management.

129. (d) 2 only
A cobblestone appearance of the bowel is classic for Crohn's disease (statement 2). Ulcerative colitis almost always involves the rectum (proctitis) and can extend proximally in a continuous pattern, so statement (1) is false. Skip lesions occur in Crohn's (discontinuous involvement), not in UC, making (3) false. Smoking actually tends to worsen Crohn's but may reduce severity in UC, so statement (4) is also false.

130. (a) 1, 2 and 3
In a significant pericardial effusion (especially if progressing to tamponade), one classically sees elevated jugular venous pressure (JVP), hypotension (part of Beck's triad), and often reduced urine output (oliguria) secondary to decreased cardiac output and renal perfusion. A water hammer pulse (bounding pulse) is characteristic of aortic regurgitation rather than pericardial effusion. Hence, (1), (2), and (3) are typical findings; (4) is not.

Downloaded from www.pdf.tube

The BCR-ABL1 fusion gene (most commonly found in chronic myelogenous leukemia) encodes a constitutively active tyrosine kinase. This abnormal kinase drives unchecked cell division and survival pathways. Targeted therapies (like imatinib) inhibit BCR-ABL's tyrosine kinase activity, thus controlling the leukemic process. It is not an alanine, leucine, or cysteine kinase—rather, its pathogenesis is tied explicitly to unregulated tyrosine phosphorylation.

103. (d) Tyrosine kinase inhibitors
Imatinib and related agents (Dasatinib, Nilotinib, Ponatinib) specifically inhibit the BCR-ABL tyrosine kinase found in chronic myeloid leukemia. They can also target other dysregulated kinases in different malignancies. They are not antibodies (monovalent or bivalent) nor interferons. Their principal mechanism is blockade of the ATP-binding site on the abnormal kinase, preventing phosphorylation of downstream signaling targets involved in tumor cell proliferation.

104. (c) Mucosa-associated lymphoid tissue lymphoma
H. pylori infection is strongly linked to gastric MALT (mucosa-associated lymphoid tissue) lymphoma. The chronic inflammation and immune stimulation in the stomach can lead to this low-grade B-cell lymphoma, which sometimes regresses upon H. pylori eradication. Burkitt's lymphoma is associated with EBV and translocation of the c-myc gene; Hodgkin's lymphoma has different etiologies; and adult T-cell leukemia/lymphoma is linked to HTLV-1 infection.

105. (b) 1, 2 and 4
Cryoprecipitate is prepared by thawing fresh frozen plasma and collecting the cold-insoluble fraction. It is especially rich in fibrinogen (1), factor VIII (2), and von Willebrand factor (4), which helps with platelet adhesion. It also contains factor XIII and fibronectin, but not high levels of factor IX (that is primarily found in prothrombin complex concentrates). Hence, 1, 2, and 4 accurately reflect cryoprecipitate's main components.

106. (d) X-linked recessive
Hemophilia B (factor IX deficiency), like Hemophilia A (factor VIII deficiency), follows an X-linked recessive inheritance pattern. Males are predominantly affected because they have only one X chromosome, while females are typically carriers unless they are homozygous for the defect. This pattern is not autosomal dominant or recessive, nor is it X-linked dominant. Most female carriers do not manifest severe disease, although some can have low factor levels due to lyonization.

107. (d) Paroxysmal nocturnal hemoglobinuria
Paroxysmal nocturnal hemoglobinuria (PNH) is a disorder caused by a PIGA gene defect leading to deficiency of GPI-anchored proteins that protect RBCs from complement-mediated lysis. Characteristically, patients experience intravascular hemolysis (often worse at night), along with cytopenias (due to the close relationship with bone marrow failure), and a high risk of venous thrombosis (particularly hepatic or portal veins). The triad of hemolysis, pancytopenia, and thrombosis is classic for PNH, not for G6PD deficiency, hereditary spherocytosis, or HUS.

108. (a) Thalassemia
A low mean corpuscular volume (MCV) indicates microcytic anemia. Thalassemia is classically microcytic, often with very low MCV out of proportion to the mild anemia. In contrast, both vitamin B12 deficiency and folate deficiency typically cause macrocytic anemia (elevated MCV). Sickle cell anemia is usually normocytic or mildly microcytic, but by definition is not the classic cause of microcytosis. Thalassemia is thus the primary cause of significantly decreased MCV among these options.

NODIA

109. (a) Kallmann syndrome
Kallmann syndrome is a form of congenital hypogonadotropic hypogonadism characterized by a failure of GnRH-secreting neurons to migrate properly, coupled with an impaired sense of smell (hyposmia or anosmia). Bardet-Biedl

1. RBC casts frequently occur in glomerulonephritis or malignant hypertension (1 correct).
2. WBC casts are characteristic of pyelonephritis or interstitial nephritis (2 correct).
3. Pigmented (dark-brown or muddy brown) casts typically come from hemoglobin or myoglobin in acute tubular necrosis, not vasculitis (3 is incorrect—vasculitis generally shows RBC casts, not pigmented).
4. Myoglobinuria can cause brown granular or pigment casts (4 correct).

Hence three of the four listed pairs are matched correctly.

140. (b) Polycythemia vera
Polycythemia vera (PV) is a myeloproliferative neoplasm characterized by an overproduction of mostly RBCs but often elevated WBCs and platelets too. It arises from a clonal mutation, frequently JAK2 V617F, causing uncontrolled erythropoiesis independent of normal physiological signals. Mastocytosis entails abnormal mast cells, myelofibrosis produces marrow fibrosis, and essential thrombocytosis chiefly raises platelet counts.

141. (a) Lente
Older intermediate insulins like Lente (and NPH) are cloudy suspensions containing insulin crystals. They must be gently mixed (resuspended) before injection to ensure a uniform dose. By contrast, basal analogues such as glargine, detemir, and degludec are clear solutions and do not require re-suspension. Lente insulin is less commonly used nowadays but remains a prototypical cloudy insulin.

142. (b) 1, 2 and 4
Anorexia nervosa typically begins with a weight-loss event or dieting (1), and patients often avoid food rigorously (2). A hallmark is a distorted body image with intense fear of weight gain; therefore, statement 3—claiming body image is intact—is incorrect. Lanugo hair on the trunk, forearms, and face may develop as the body's attempt to maintain warmth under extreme weight loss (4).

143. (d) 2, 3 and 4
Loop and thiazide diuretics often cause hypovolemia (from volume depletion), hyponatremia (excess sodium excretion), and hypokalemia. In contrast, they frequently lead to metabolic alkalosis, not acidosis. Alkalosis arises because diuretic-induced volume contraction elevates aldosterone, which increases renal potassium and hydrogen ion loss. Hence, (2), (3), and (4) are correct, while (1) is not.

144. (c) Proton-pump inhibitors (PPIs) are effective at reducing the incidence of ulceration.
Stress-related mucosal damage is common in critically ill patients, so (a) is incorrect. Typically, once full enteral feeding is established, many guidelines suggest discontinuing prophylaxis, contradicting (b). Moreover, combined PPI plus antibiotics often increase the risk of C. difficile infection, not decrease it (d). The recognized correct statement is that PPIs can effectively lower stress-ulcer incidence, particularly in high-risk ICU settings.

145. (c) 1 and 3 only
A post–lumbar puncture headache is often described as a dull or throbbing occipitofrontal headache (1). It classically worsens when the patient is upright and improves rapidly upon lying flat (3), due to reduced CSF pressure in the upright position. Statement (2), worse on waking but improves during the day, does not reflect the typical posture-related pattern. Instead, it tends to worsen with standing and ease with recumbency.

146. (a) 1, 2 and 3
Alpha-1-antitrypsin deficiency can present in neonates with cholestatic jaundice (1), while adults classically develop early-onset panacinar emphysema (2). In some cases, a rare panniculitis can occur (3). However, it follows an autosomal codominant inheritance, not a simple autosomal dominant pattern, so (4) is false.

147. (a) 1, 2 and 3
Granulomatous hepatitis is a recognized adverse reaction to several medications

Click Here to Buy book on Amazon

162. (a) 1, 2 and 3
Advanced age (especially >55 years), a high WBC count, and hypocalcemia (low serum calcium) are well-known poor prognostic factors in acute pancreatitis (reflected in Ranson's and other scoring systems). These markers indicate severe inflammation and possible necrosis. Hypercarbia per se is not a classic poor prognostic marker. Other poor prognostic indicators include elevated blood glucose, elevated LDH, and more. Therefore, (1), (2), and (3) correctly indicate worse outcomes.

163. (a) 1, 2 and 3
Gallstones and alcohol are the two most frequent causes of acute pancreatitis. Iatrogenic pancreatitis can occur following ERCP (post-ERCP). While many infections (e.g., mumps) have been implicated, Campylobacter jejuni is not a commonly recognized cause of acute pancreatitis. Therefore, the three well-established causes among these options are gallstones, alcohol, and ERCP-related trauma.

164. (b) 1, 2 and 4
Hemochromatosis can be hereditary (primary) or secondary. Thalassemia major and pyruvate kinase deficiency both often require repeated blood transfusions, leading to secondary iron overload. Porphyria cutanea tarda has known associations with iron accumulation. Chronic cor pulmonale does not typically produce hemochromatosis. Patients with these hematological disorders or certain porphyrias can accumulate excess iron, manifesting as secondary hemochromatosis.

165. (a) 1, 2 and 3
While H. pylori and NSAIDs are the most common peptic ulcer culprits, other medications can also injure the gastric or duodenal mucosa. Clopidogrel can cause erosive GI lesions, glucocorticoids predispose to peptic ulcers (especially when combined with NSAIDs), and bisphosphonates can cause esophageal/gastric ulcers if not taken with adequate water or while lying down. Colloidal bismuth subcitrate is protective and used in treating peptic ulcer disease rather than causing it.

166. (b) 1, 2 and 4
Irritable bowel syndrome (IBS) is characterized by abdominal discomfort or pain associated with altered bowel habits—often diarrhea, constipation, or both—and by bloating, gas, and flatulence. Patients typically do not have bloody stools; the presence of blood usually suggests another pathology such as inflammatory bowel disease. Hence gas/flatulence (1), abdominal pain (2), and diarrhea (4) are classic IBS symptoms, while frank blood in stools (3) is not.

167. (d) 1, 2 and 3
Conjugated hyperbilirubinemia can cause dark urine, often noticed before overt yellowish discoloration of skin or sclerae. Clinically evident jaundice generally occurs once serum bilirubin exceeds around 2 mg/dL (1.8 mg/dL is close to that threshold). In Gilbert syndrome (mild unconjugated hyperbilirubinemia), episodes of visible jaundice can be precipitated by fasting, stress, or illness. Hence all three statements are correct.

168. (b) 1, 2 and 4
IBS is commonly triggered or worsened by stress, presents with recurrent abdominal pain or discomfort, and features altered bowel patterns—often alternating diarrhea and constipation. Typical onset is in younger or middle-aged adults rather than after age 50 (where a new onset of symptoms warrants further investigation for organic pathologies). Thus, stress exacerbation (1), recurrent discomfort (2), and alternating bowel habits (4) reflect IBS.

NODIA

169. (b) Fecal clearance of alpha-1 antitrypsin
Protein-losing enteropathy involves excessive loss of plasma proteins through the gut. Measuring the clearance of alpha-1 antitrypsin in stool is a sensitive, specific test because alpha-1 antitrypsin is neither degraded nor reabsorbed in the intestines. High levels in feces indicate

atrium pushes the bronchi laterally. Rounding of the left heart border is more typical of left ventricular enlargement, not isolated LA dilation.

155. (a) Constrictive pericarditis
A paradoxical increase in jugular venous pressure on inspiration is known as Kussmaul's sign. It is classically associated with conditions that restrict diastolic filling of the right ventricle, such as constrictive pericarditis or restrictive cardiomyopathy. Among the options given, constrictive pericarditis is the prime cause of Kussmaul's sign. Atrial septal defect, aortic regurgitation, and mitral stenosis do not typically produce a raised JVP on inspiration.

156. (b) Acute pericarditis
Diffuse ST elevation with an upward concavity (saddle-shaped) and PR segment depression are classic findings in acute pericarditis. ST elevations in myocardial infarction are typically localized to specific leads reflecting the involved coronary territory and do not usually display widespread upward concavity or PR depression. Reciprocal changes in lead aVR further support pericarditis. Chest pain that improves when sitting upright is another classic feature, though not mentioned here.

157. (d) 2, 3 and 4
Though the wording is a bit unusual (since controller therapies is generally a term for chronic management), systemic glucocorticoids can be used for short-term control during severe exacerbations, inhaled glucocorticoids are cornerstone long-term controllers, and omalizumab is a controller for severe allergic asthma. Anticholinergics (especially short-acting ipratropium) are primarily quick-relief medications in acute settings rather than standard controllers. Long-acting anticholinergics (e.g., tiotropium) do serve as controllers, but the question likely refers to short-acting forms.

158. (a) 1, 2 and 3
Very low pleural fluid glucose is seen in conditions with intense inflammatory or malignant involvement. Pyogenic (infected) pleural effusions or empyema consume glucose due to high metabolic activity of bacteria and leukocytes. Rheumatoid pleuritis is known for extremely low glucose levels, sometimes <30 mg%. Malignant effusions can also have depressed glucose levels. In contrast, hepatic hydrothorax is usually a transudates effusion with relatively normal glucose concentrations. Thus 1, 2, and 3 are correct.

159. (d) 1, 2 and 3
Idiopathic Pulmonary Fibrosis (IPF) often presents in older patients (usually over 60) and is characterized by progressive fibrosing interstitial pneumonia. The classic high-resolution CT or radiological pattern is called usual interstitial pneumonia (UIP). Clinical features commonly include progressive dyspnea and dry cough, and finger clubbing is frequently observed. All three statements—typical radiological UIP, presence of clubbing, and predilection for older age—are true for IPF.

160. (b) 1, 2 and 4
Bronchial asthma characteristically causes an obstructive pattern on spirometry, reflected by a reduced FEV_1/FVC ratio. Air trapping leads to an increased functional residual volume and total lung capacity. A hallmark of reversible airway obstruction is a significant rise in FEV_1 after bronchodilator administration—often defined as ≥12% and 200 mL improvement. Diffusion capacity is typically normal or near normal in uncomplicated asthma, so statement 3 (reduced diffusion capacity) is not a usual finding.

NODIA

161. (d) 2, 3 and 4
Obstructive sleep apnea (OSA) is strongly associated with factors that narrow or relax the upper airway. Obesity is the most common risk factor. Acromegaly causes tissue/bone overgrowth in the oropharynx, narrowing the airway. Alcohol/sedatives relax pharyngeal muscles, promoting airway collapse. Hyperthyroidism is not typically linked to OSA (hypothyroidism can be). Hence acromegaly, obesity, and alcohol/sedative use (2, 3, and 4) are correct.

including carbamazepine, allopurinol, and diltiazem. These can trigger a granulomatous inflammatory response in liver tissue. Acetaminophen typically causes hepatocellular necrosis with markedly elevated transaminases in overdose, not granulomas. Thus, (1), (2), and (3) are implicated in granulomatous liver injury; (4) is not.

148. (b) Metoprolol
Although metoprolol is relatively cardioselective for β1-receptors, at higher doses or in susceptible individuals (e.g., those with a history of asthma or reactive airway), it can still induce bronchoconstriction. This manifests clinically as wheezing and shortness of breath. Enalapril more commonly causes a dry cough rather than wheezing, nitroglycerin generally does not provoke bronchospasm, and aspirin-induced respiratory issues are more commonly linked to nasal polyps and asthma exacerbations (AERD). Hence, metoprolol is the most likely culprit.

149. (d) Ivabradine
Ivabradine selectively inhibits the funny (If) current in the sinoatrial (SA) node, reducing heart rate without affecting contractility. In patients with heart failure and elevated resting heart rates despite being on a beta-blocker (like metoprolol), ivabradine helps further lower heart rate and improve outcomes in those with reduced ejection fraction. Ranolazine is used primarily for angina management. Diclofenac (an NSAID) can worsen fluid retention in heart failure, and prednisolone may aggravate fluid overload in heart failure.

150. (c) 1, 3 and 4
Rivaroxaban, apixaban, and dabigatran are novel oral anticoagulants (NOACs). They are taken orally and act by either directly inhibiting factor Xa (rivaroxaban, apixaban) or directly inhibiting thrombin (dabigatran). Fondaparinux, however, is administered subcutaneously and selectively inhibits factor Xa but is not available as an oral formulation. Therefore, among the listed agents, only rivaroxaban (1), apixaban (3), and dabigatran (4) can be given orally.

151. (d) 1, 2, 3 and 4
All four classes can contribute to fluid retention and peripheral edema. Dihydropyridine calcium channel blockers (e.g., amlodipine) commonly cause vasodilatory edema. NSAIDs can reduce renal prostaglandin synthesis, leading to sodium and water retention. Glucocorticoids induce fluid retention by increasing sodium reabsorption. Mineralocorticoids (e.g., fludrocortisone or endogenous hyperaldosteronism) also promote sodium and water retention, contributing to peripheral edema. Therefore, all four can be associated with leg swelling.

152. (a) 1, 2 and 3
A loud first heart sound (S1) typically occurs when the mitral valve leaflets are wide open and then close forcefully (often in high cardiac output states or situations with a short PR interval). Anaemia, pregnancy, and thyrotoxicosis all increase cardiac output and can intensify S1. Mitral regurgitation, however, generally leads to a soft S1 because the valve closure is less forceful (regurgitant flow and incomplete coaptation). Thus, 1, 2, and 3 are correct.

153. (a) 1, 2 and 3
Ivabradine selectively inhibits the pacemaker funny current in the SA node, thereby reducing heart rate without affecting myocardial contractility. It is indicated in patients with heart failure (reduced ejection fraction) who have a persistent elevated heart rate despite beta-blocker therapy. It works only if there is sinus rhythm, so it is not effective in atrial fibrillation because AF involves disorganized electrical activity not controlled by a single sinus pacemaker. Hence statements 1, 2, and 3 are correct.

154. (c) 1, 3 and 4
On a chest X-ray, left atrial enlargement can manifest as a straightening (or subtle bulge) of the left heart border (due to an enlarged atrial appendage), a double density sign on the right side of the heart silhouette (double cardiac shadow), and splaying of the carina or widening of the subcarinal angle as the enlarged left

Downloaded from www.pdf.tube

abnormal protein leakage. Hydrogen breath tests are used for carbohydrate malabsorption, fecal calprotectin reflects bowel inflammation, and labeled transthyretin is rarely used compared to alpha-1 antitrypsin clearance.

170. (c) 1, 3 and 4
Red blood cell casts are pathognomonic of glomerular hematuria, typically seen in acute glomerulonephritis. They may also appear in systemic vasculitis that involves the renal glomeruli and in malignant hypertension due to severe vascular damage. Interstitial nephritis more commonly presents with white blood cell casts or eosinophiluria rather than RBC casts. Therefore, glomerulonephritis (1), vasculitis (3), and malignant hypertension (4) are associated with RBC casts.

171. (c) 1 and 3 only
Essential tremor can indeed present at any age, though it frequently first appears in adulthood. It commonly involves the head (in a yes-yes or no-no pattern), so statement 2 is incorrect. A well-known clinical feature is improvement of the tremor after consuming a small amount of alcohol. Because the head is often affected, the claim that it is almost never involved is false. Hence 1 and 3 are correct.

172. (c) 1 and 3 only
Parkinsonism can be induced by agents that reduce dopamine activity or damage dopaminergic neurons. Atypical anti psychotics (e.g., risperidone) block dopamine receptors in the nigrostriatal pathway, causing extrapyramidal symptoms including parkinsonism. MPTP is notorious for selectively destroying intrascrotal dopaminergic neurons and precipitating Parkinson's disease. Lithium more often causes a coarse tremor, but true parkinsonism is less common compared to the other two. Therefore, statements 1 and 3 are most closely linked to Parkinson's disease.

173. (a) 1, 2 and 3
Parkinson's disease is characterized by rigidity, bradykinesia, resting tremor, and postural instability. Lead pipe rigidity is a uniform resistance throughout the range of movement, while cogwheel rigidity is that same resistance interrupted by tremor-related jerks. A festinating (shuffling, accelerating) gait is also classic. Romberg positivity usually indicates a sensory/proprioceptive deficit, not Parkinson's disease. Hence 1, 2, and 3 are suggestive of Parkinson's.

174. (d) 2, 3 and 4
Idiopathic Parkinson's disease commonly starts asymmetrically (one side more affected initially). Non-motor symptoms—such as hyposmia, constipation, depression, and sleep disturbances—often appear early. Cognition in the early stages is generally intact or only mildly affected, with significant dementia usually arising later. Speech changes such as softening of the voice (hypophonia) and indistinct articulation are also frequently seen. Hence statements 2, 3, and 4 are correct.

NODIA

175. (d) 2, 3 and 4
Levodopa is the gold-standard treatment for Parkinson's disease, helping most motor symptoms (especially bradykinesia and rigidity). However, describing it as most effective specifically for tremors can be misleading, as tremor may sometimes respond less dramatically. Only a small fraction of levodopa crosses the blood-brain barrier, with the majority metabolized peripherally. Nausea is common but can be mitigated by peripheral dopamine antagonists like domperidone. Levodopa also can produce psychiatric side effects, including hallucinations and confusion.

176. (b) 1, 2 and 4
Strokes can be ischemic or hemorrhagic. Sickle cell disease predisposes to ischemic strokes due to sickled cells blocking small cerebral vessels. Cigarette smoking is a major modifiable risk factor for atherosclerosis and thrombotic events. Atrial fibrillation significantly increases the risk of cardioembolic strokes. Hypofibrinogenemia, however, tends more toward bleeding or coagulopathy issues rather than thrombosis.

occurs in absolute iron deficiency and also in functional/relative iron deficiency (as in anemia of chronic disease). Lead poisoning also disrupts heme synthesis, causing elevated protoporphyrin levels. Thus all three scenarios (1, 2, and 3) can present with increased RBC protoporphyrin.

210. (a) 1, 2 and 3
In the earliest phase (negative iron balance) of iron deficiency, the most sensitive indicators are depletion of bone marrow iron stores (1) and low serum ferritin (3). Percent transferrin saturation (2) also begins to drop. Total iron-binding capacity (TIBC) often rises eventually, but a clear increase may appear slightly later. Hence the earliest laboratory derangements primarily involve bone marrow iron, ferritin, and transferrin saturation.

211. (d) 1, 2, 3 and 4
G6PD deficiency renders red cells more vulnerable to oxidative stress. Certain drugs (e.g., primaquine, dapsone, cotrimoxazole, nitrofurantoin) can precipitate hemolysis by generating reactive oxygen species that RBCs cannot neutralize effectively without sufficient G6PD. All four listed agents are recognized triggers of hemolytic crises in G6PD-deficient individuals.

212. (b) Chronic myeloid leukemia
Massive splenomegaly, extremely elevated WBC counts (often 100,000/μL), high platelet counts, and a gradual clinical course are hallmark features of chronic myeloid leukemia (CML). Patients frequently complain of fatigue, weight loss, and abdominal fullness from splenomegaly. By contrast, CLL often presents with lymphocytosis in older patients, and acute leukemias typically have a shorter course.

213. (c) 1, 3 and 4
Known risk factors for type 2 diabetes include a family history of diabetes (1), lack of exercise (3), and conditions such as PCOS (4). Overweight/obesity also significantly contributes; underweight is not a recognized risk factor. Patients who have polycystic ovary syndrome often exhibit insulin resistance and thus are more prone to developing type 2 diabetes.

214. (c) Primary thyrotoxicosis
Undetectable TSH with elevated T3 and T4 strongly indicates hyperthyroidism (thyrotoxicosis) of primary origin. In primary hyperthyroidism, the thyroid gland is overproducing hormone, which suppresses pituitary TSH. Transient thyroiditis can show fluctuating levels, but typically T4 may be disproportionately high relative to T3 early on. Overtreatment of hypothyroidism can sometimes cause similar findings, yet T4 and T3 patterns—and clinical context—usually clarify the cause.

215. (a) Psuedohyponatremia
Markedly elevated triglycerides can artificially lower serum sodium readings on certain laboratory analyzers, leading to pseudohyponatremia. Essentially, the fraction of plasma occupied by lipids increases, leaving less aqueous phase per unit volume, and this skews some measurement techniques. It is not a true reduction in sodium concentration and corrects with more modern direct ion-selective methods.

216. (c) Serum i PTH levels
The most important initial step in assessing hypercalcemia is measuring intact parathyroid hormone (PTH). If PTH is high or inappropriately normal, it suggests primary hyperparathyroidism or familial variants. If PTH is suppressed, further tests (e.g., vitamin D, malignancy workup) guide the differential. Checking 24-hour urine calcium or phosphate can help subsequently, but the key first line is to distinguish PTH-mediated from non-PTH–mediated causes.

217. (a) 1, 2 and 3
Standard therapies for acne include topical benzoyl peroxide (which helps reduce bacteria and pore blockage), topical antibiotics (e.g. clindamycin), and in moderate-to-severe cases, oral isotretinoin. Oral ivermectin is mainly used in certain parasitic infections and sometimes

Click Here to Buy book on Amazon

Hypomagnesemia can impair PTH release and action, causing hypocalcemia. Chronic alcoholism often leads to poor magnesium and nutritional status, again producing low calcium. Pseudohypoparathyroidism is characterized by end-organ (bone and kidney) resistance to PTH, thus manifesting as hypocalcemia. Paget's disease primarily involves abnormal bone remodeling and usually normal serum calcium levels (unless other factors are present). Hence 1, 2, and 3 are plausible causes of low calcium.

185. (d) 2, 3 and 4
Common pharmacologic treatments for hirsutism target androgen production or action. Low-dose estrogen (in combined oral contraceptives) helps reduce free testosterone, while finasteride (a 5α-reductase inhibitor) and spironolactone (an androgen receptor blocker) both directly counter androgen effects. Amiloride is not a standard anti-androgen for hirsutism. Hence oestrogen, finasteride, and spironolactone are recognized options.

186. (b) Glargine
Insulin glargine is a long-acting, peakless insulin analog typically dosed once daily to provide basal coverage. In contrast, insulin aspart and insulin lispro are rapid-acting formulations for mealtime glucose control, and regular insulin is short-acting, used typically 30 minutes before a meal or for intravenous infusion in hospital settings.

187. (d) Potassium repletion
During diabetic ketoacidosis (DKA), total body potassium is often low despite normal or even high serum potassium on presentation. Once insulin therapy and IV fluids begin, potassium shifts into cells and can precipitate a rapid fall in serum potassium. Manifestations include muscle weakness or paralysis (inability to lift limbs). Therefore, the next critical step is to evaluate and correct hypokalemia.

188. (a) Denosumab
Denosumab is a monoclonal antibody against RANKL given subcutaneously (usually every 6 months) to reduce osteoclast activity and bone resorption. Alendronate is an oral bisphosphonate, zoledronic acid is administered intravenously (yearly), and raloxifene (an estrogen receptor modulator) is taken orally.

189. (b) 1, 2 and 4
Osteoporosis is largely asymptomatic until a fracture occurs (often hip, wrist, or vertebra). Vertebral fractures may manifest simply as reduced height or kyphosis without acute pain. Smoking is actually a known risk factor, not protective. Incidentally noted decreased bone density on X-ray or DEXA scanning is also a common way osteoporosis is first recognized. Hence 1, 2, and 4 are correct.

190. (c) 1, 3 and 4
Ankylosing spondylitis often presents with inflammatory back pain, classically worse in the morning and improving with activity—so early morning pain/stiffness is common, not rare, making statement 2 incorrect. Bamboo spine describes the characteristic radiographic finding. Acute anterior uveitis (iritis) is the most frequent extra-articular complication. The condition has a strong male predominance. Hence 1, 3, and 4 are correct.

NODIA

191. (a) 1, 2 and 3
Carpal Tunnel Syndrome (median nerve entrapment) classically presents with nocturnal pain and paresthesias (1) and can produce weakness in thumb abduction (2), since the median nerve innervates the abductor pollicis brevis. Although the palmar cutaneous branch typically branches before the tunnel (thus often sparing central palm sensation), exam questions commonly simplify it as loss of sensation in the lateral palmar region (3). By contrast, atrophy of the thenar eminence (not hypothenar) is expected.

192. (c) 1, 3 and 4
Routine monitoring of rheumatoid arthritis activity focuses on clinical and laboratory parameters (e.g., ESR, CRP), patient-reported pain scores (like a visual analogue scale), and composite indices such as the DAS28 (Disease

In acute ST-segment elevation with a new systolic murmur at the apex, a mechanical complication such as papillary muscle dysfunction or rupture leading to acute mitral regurgitation is possible. Although checking cardiac markers (troponins) is essential, echo cardiography is the immediate investigation of choice to identify or confirm any structural abnormality (e.g., valvular regurgitation, wall motion defects). Early echo cardiographic evaluation is critical for guiding urgent interventions in a potentially unstable condition.

226. (b) 1, 2 and 4
Digitalis toxicity can produce multiple arrhythmias, including ventricular ectopics (commonly presenting as bigeminy), ventricular tachycardia, and the characteristic atrial tachycardia with AV block. While atrial flutter can be seen in many arrhythmias, it is not among the most classic ECG findings directly attributed to digitalis toxicity. Ventricular bigeminy, ventricular tachycardia, and PAT with block (atrial tachycardia with variable block) are well-documented manifestations of digitalis overdose.

227. (a) Paroxysmal supraventricular tachycardia
Carotid sinus massage increases baroreceptor stimulation, raises vagal tone, and can terminate tachyarrhythmias involving the AV node, such as AV nodal re-entrant tachycardia (the most common type of PSVT). Rapid restoration of normal sinus rhythm after carotid massage strongly points to PSVT, especially at a rate of about 150 beats per minute. Ventricular tachycardia, atrial flutter, and ventricular fibrillation do not typically revert so promptly with vagal maneuvers, making PSVT the most likely diagnosis.

228. (a) It is a high pitched diastolic sound.
An opening snap is characteristically heard in mitral stenosis. It is a high-pitched, early diastolic sound that occurs just after the second heart sound (S2), reflecting the abrupt halt of stenotic mitral valve leaflets. It does not precede S2, nor is it caused by aortic valve pathology. While pulmonary hypertension can affect timing between S2 and the opening snap, the hallmark of an opening snap itself is tied to the mitral valve in diastole.

229. (a) Hypertrophic obstructive cardiomyopathy
In hypertrophic obstructive cardiomyopathy (HOCM), sublingual nitroglycerin reduces venous return and decreases left ventricular volume, worsening the outflow tract obstruction and intensifying chest pain. A family history of sudden cardiac death in a relatively young individual supports HOCM as well. By contrast, in typical ischemic angina, chest pain improves with nitrates. The genetic predisposition and adverse response to nitroglycerin are classic hallmarks pointing to HOCM rather than aortic dissection or valvular lesions.

230. (c) Amiodarone
Amiodarone is well known for its wide range of adverse effects. It frequently causes skin manifestations such as photosensitivity and blue-gray discoloration in sun-exposed areas. Neurological side effects include peripheral neuropathy, tremors, and ataxia. Thyroid dysfunction (both hypo- and hyperthyroidism) and corneal deposits are also recognized complications. Other listed drugs are not commonly associated with this distinct cluster of cutaneous and neurologic side effects, making amiodarone the clear suspect here.

231. (a) 1, 2 and 3
Obstructive lung diseases are conditions that involve airflow limitation due to obstruction in the airways. Bronchial asthma, bronchiectasis, and bronchiolitis all typically present with obstructive physiology and reduced airflow. Pulmonary sarcoidosis, however, is generally classified as a restrictive lung disease, featuring reduced lung volumes and decreased compliance rather than airway obstruction. Therefore, asthma, bronchiectasis, and bronchiolitis fit into the obstructive category, making options 1, 2, and 3 the correct grouping.

232. (a) 1, 2 and 3
COPD is commonly linked to tobacco smoking, occupational exposures (including coal dust),

Downloaded from www.pdf.tube

countries. Diabetic nephropathy typically presents with persistent albuminuria, progressive decline in GFR, and is a major cause of end-stage renal disease. Hypertension, glomerulonephritis, and hereditary cystic diseases also contribute but are less common than diabetic nephropathy overall.

202. (d) 1, 3 and 4
Contrast-induced nephropathy is more likely in patients with diabetes, pre-existing renal insufficiency, or dehydration. Adequate hydration before and after contrast administration is crucial to reduce risk. Metformin is usually stopped around the time of contrast in renal impairment to lower the risk of lactic acidosis if kidney function worsens. Although N-acetylcysteine has been studied for prophylaxis, it does not reliably fully reverse renal injury; thus statement 2 is overstated.

203. (c) Angiotensin II mediated vasoconstriction
Renal autoregulation comprises two main mechanisms: the myogenic response (primarily afferent arteriole) and tubuloglomerular feedback (via the juxtaglomerular apparatus, again mostly modulating afferent tone). Angiotensin II, part of the renin-angiotensin-aldosterone system, preferentially constricts the efferent arteriole, thereby helping maintain GFR when perfusion pressure is reduced.

204. (a) 1, 2 and 3
Nephrotic syndrome is characterized by heavy proteinuria and hypoalbuminemia. The liver compensates by increasing protein (including lipoprotein) synthesis, leading to hyperlipidemia (1). Patients often lose multiple serum proteins, including immunoglobulins and antithrombin III, so globulin levels may be low (2) and the hypercoagulable state arises partly from decreased antithrombin III (so 4 is incorrect). Reduced effective circulating volume triggers RAAS activation, elevating aldosterone levels (3).

205. (a) Sixth amino acid–glutamic acid is replaced by valine
The hallmark mutation in sickle cell disease is a single base substitution in the β-globin gene that changes the sixth amino acid from glutamic acid (hydrophilic) to valine (hydrophobic). This alteration causes hemoglobin S (HbS), which polymerizes under low oxygen tension, leading to red blood cell sickling.

206. (c) 1, 3 and 4
A high reticulocyte production index indicates robust bone marrow response to ongoing RBC loss or hemolysis. Sickle cell disease (1) and G6PD deficiency (3) both involve hemolysis, while acute blood loss (4) prompts compensatory reticulocytosis. In contrast, vitamin B12 deficiency (2) causes ineffective erythropoiesis, so the reticulocyte count usually remains low or inappropriately normal for the degree of anemia.

NODIA

207. (b) Lenalidomide, Bortezomib, Dexamethasone
Lenalidomide (an immunomodulatory drug), bortezomib (a proteasome inhibitor), and steroids (e.g., dexamethasone) are a well-established triplet regimen for multiple myeloma, including relapsed cases. Infliximab or rituximab are more relevant to autoimmune conditions or B-cell lymphomas, respectively, and standard chemotherapy combinations like methotrexate or doxorubicin are not mainstays for relapsed myeloma.

208. (a) 1, 2 and 3
In heparin-induced thrombocytopenia (HIT), the primary step is to discontinue heparin and initiate a non-heparin anticoagulant such as a direct thrombin inhibitor (e.g., lepirudin, argatroban) or a factor Xa inhibitor (fondaparinux, rivaroxaban). Warfarin is contraindicated initially because it can transiently lower protein C levels, increasing thrombosis risk. Only after platelet counts recover can warfarin be safely introduced.

209. (d) 1, 2 and 3
Free erythrocyte protoporphyrin (FEP) or zinc protoporphyrin rises when heme synthesis is impaired by inadequate iron supply. This

Hence 1, 2, and 4 are recognized stroke risk factors.

177. (b) 1, 2 and 4
Myasthenia gravis is caused by autoantibodies against the post-synaptic acetylcholine receptors (not pre-synaptic) at the neuromuscular junction. Patients typically note muscle weakness that worsens later in the day or after repeated use. Chewing and swallowing become difficult as cranial muscles fatigue. The drug penicillamine can trigger a similar autoimmune phenomenon. Therefore, 1, 2, and 4 are correct, and statement 3 (pre-junctional membrane involvement) is incorrect.

178. (d) 1, 2 and 3
Assessment of hepatic (or metabolic) encephalopathy includes both clinical signs and psychometric tests. Flapping tremor (asterixis) is a classic sign of encephalopathy, often noted in liver failure. The number connection test (or trail making test) is a well-known neuropsychological measure of cognitive function in hepatic encephalopathy. Constructional apraxia (tested by having patients draw or construct shapes) can also indicate subtle deficits in mental status. All three can be employed to gauge functional impairment.

179. (d) Transfusion associated GVHD can be prevented by prior irradiation of transfused blood
ABO antigens are carbohydrate moieties (not polypeptides). Platelets are typically stored at room temperature with gentle agitation for a maximum of about 5–7 days, not 35 days. Hemolytic disease of the newborn usually involves maternal IgG, not IgA. Transfusion-related graft-versus-host disease occurs when donor T-lymphocytes attack recipient tissues; irradiation inactivates these lymphocytes, preventing GVHD. Thus, (d) is the only correct statement.

180. (c) Dabigatran
Among newer anticoagulants, rivaroxaban and apixaban are direct Factor Xa inhibitors and are given orally. Argatroban is a parenteral direct thrombin inhibitor (often used in heparin-induced thrombocytopenia). Dabigatran etexilate, however, is an orally administered direct thrombin (Factor IIa) inhibitor approved for stroke prevention in atrial fibrillation and for treatment/prevention of venous thromboembolism. Hence dabigatran is the correct oral direct thrombin inhibitor.

181. (d) 1, 2 and 3
Metformin's maximum recommended dose often hovers around 2000 mg/day (though some guidelines permit up to ~2550 mg). A rare but significant adverse effect is lactic acidosis, especially in renal compromise. Chronic use can reduce vitamin B12 absorption, potentially leading to deficiency. Thus all three statements are correct. Metformin is a first-line therapy in type 2 diabetes, but caution is advised in patients with significantly impaired renal function.

182. (c) 1, 3 and 4
Pituitary-derived growth hormone drives linear bone growth, so statement 1 is correct. A normal bone age with short stature usually suggests a familial or constitutional cause (not typically a hormonal defect), making statement 2 incorrect. The common formula to estimate final height in boys is mid-parental height (in cm) plus ~6.5 cm. Lastly, recombinant GH therapy indeed restores near-normal growth velocity in children who are growth hormone deficient. Thus 1, 3, and 4 are correct.

183. (c) Sitagliptin
Insulin, sulfonylureas (e.g., glimepiride), and meglitinides (e.g., repaglinide) all enhance insulin release or action, and can lead to hypoglycemic episodes. Sitagliptin, a DPP-4 inhibitor, boosts postprandial incretin levels, leading to glucose-dependent insulin secretion; it rarely causes clinically significant hypoglycemia unless combined with other hypoglycemic agents. Therefore, among these options, sitagliptin has the lowest risk of triggering hypoglycemia.

184. (a) 1, 2 and 3

Click Here to Buy book on Amazon

rosacea, not for typical acne vulgaris. Therefore, the first three are recognized mainstays of acne treatment.

218. (d) Radiotherapy
Scarring (cicatricial) alopecia occurs when the hair follicles are destroyed and replaced with scar tissue. Radiotherapy can permanently damage follicles, causing scarring alopecia. By contrast, androgenic alopecia and alopecia areata are non-scarring forms of hair loss. Syphilis typically causes moth-eaten hair loss but not true cicatricial alopecia in the usual sense.

219. (a) 1, 2 and 3
Established mood stabilizers include lithium, valproic acid, lamotrigine, and carbamazepine. They help regulate manic and depressive episodes in bipolar disorder. Propranolol, a beta-blocker, can aid with anxiety or tremors but is not classified as a standard mood stabilizer. Thus valproic acid, lamotrigine, and carbamazepine are correct for bipolar.

220. (b) 1, 2 and 4
An AV fistula (often in the forearm) must mature over weeks to months, so creating it well before dialysis is essential (some guidelines suggest at least 6–12 weeks, but planning up to a year early is not unreasonable). The walls of the chosen vessels do thicken and enlarge with arterial pressure (1). If a native fistula is not feasible, a synthetic graft can be placed (4). Leg veins are not the usual first choice (3 is incorrect) unless upper limbs are unsuitable.

221. (a) Anaphylaxis to allergens that are difficult to avoid
Patients at high risk of severe or life-threatening allergic reactions (e.g. peanut allergy, insect stings) are often prescribed a self-injectable epinephrine device (e.g., EpiPen). This allows immediate administration at the first sign of anaphylaxis, which can be life-saving. Cardiogenic shock and complete heart block require different interventions. Pheochromocytoma treatment focuses on alpha-adrenergic blockade prior to surgery; self-injectable epinephrine is not indicated.

222. (b) 1, 2 and 4
Pulseless electrical activity (PEA) is often approached via H's and T's. Key reversible causes include:
1. Tension pneumothorax
2. Tamponade (1)
3. Thrombosis (pulmonary or coronary) (2)
4. Hypovolemia
5. Hypoxia
6. Hydrogen ion (acidosis)
7. Hypokalemia or hyperkalemia (4)
8. Hypothermia (not hyperthermia)

Hence pericardial tamponade, pulmonary embolism, and electrolyte disturbances (hypokalemia) are classic correctable contributors.

223. (a) Oxygen + Aspirin + Ticagrelor + Metoprolol
In the setting of acute coronary syndrome manifesting with ST depression and T-wave inversion but without elevated cardiac enzymes, unstable angina (or non-ST elevation acute coronary syndrome) is likely. Immediate management includes providing oxygen if hypoxic, antiplatelet therapy (aspirin plus a P2Y12 inhibitor such as ticagrelor), and a beta-blocker like metoprolol to reduce myocardial oxygen demand. Although nitrates are also important to relieve ischemic pain, the combination of aspirin and ticagrelor along with a beta-blocker is crucial for stabilizing the clinical picture.

224. (d) Hypocalcemia
ST segment elevation can appear in acute pericarditis, ventricular trauma (such as contusions), and hypothermia (notably causing Osborne or J waves). Hypocalcemia typically leads to a prolonged QT interval, not ST segment elevation. Because it does not characteristically present with raised ST segments, hypocalcemia is not listed among common causes of ST elevation and thus is the correct choice for not a differential diagnosis of ST segment elevation.

225. (b) Echo cardiography

Downloaded from www.pdf.tube

Activity Score-28 joints). While serial X-rays are used to gauge long-term structural damage (erosion, joint space narrowing), they are less sensitive for short-term fluctuations in disease activity. Therefore, pain assessment, DAS28 scoring, and inflammatory markers (ESR) are the standard measures of current disease activity.

193. (a) Cortical sensation
Graphesthesia (ability to recognize writing on the skin by touch) and stereognosis (ability to identify objects by touch) both rely on intact dorsal columns and functioning sensory cortex. They're typically classified as cortical (discriminative) sensory tests because the final integration/recognition occurs in the parietal lobe. While basic vibration/position sense tests the posterior column, graphesthesia and stereognosis specifically test higher-level cortical sensory processing.

194. (b) Acute pancreatitis
Purtscher's retinopathy is a rare form of occlusive microvasculopathy typically seen after severe trauma or in association with acute pancreatitis. It is characterized by retinal whitening and hemorrhages around the optic disc (Purtscher flecken) and can cause acute vision loss. It is not usually linked with peritonitis, cholecystitis, or fulminant hepatic failure.

195. (d) 1, 2 and 4
Zollinger-Ellison syndrome's classic triad is: (1) severe/recurrent peptic ulceration, (2) markedly increased gastric acid secretion, and (3) a gastrin-secreting tumor—often located in the pancreas or duodenum (i.e., a pancreatic neuroendocrine tumor). Because a gastrinoma is essentially a type of pancreatic neuroendocrine tumor, options 1, 2, and 4 effectively describe the characteristic triad.

196. (b) 20–25%
REM sleep typically occupies about one-fifth to one-quarter of total sleep in healthy young adults. Stage distributions can vary with age and individual factors, but ~20–25% REM is the usual range. The remainder is primarily non-REM stages (N1, N2, N3).

197. (a) 1, 2 and 3
Commonly recognized medications associated with pseudotumor cerebri (idiopathic intracranial hypertension) include tetracycline antibiotics (e.g., minocycline), excessive Vitamin A or retinoids (e.g., isotretinoin), and growth hormone therapy. While a variety of other agents have been implicated, sulfonamides are less classic. The most definitively proven culprits among those listed are tetracyclines, retinoids, and Vitamin A.

NODIA

198. (c) Type-III
Farmer's lung is a prototype of hypersensitivity pneumonitis caused by inhaled organic antigens (moldy hay). It primarily involves immune complex deposition (Type III hypersensitivity), with an additional Type IV (delayed T-cell–mediated) component. However, classically it is taught as a Type III–predominant reaction in Gell and Coombs terms.

199. (d) Collecting Ducts
While some hormonal influences (e.g., aldosterone) begin in the late distal tubule, the collecting ducts (particularly the cortical collecting duct) are the principal sites of hormonal regulation for both sodium (via aldosterone) and water (via antidiuretic hormone). Final urine concentration and electrolyte excretion are fine-tuned here.

200. (c) Hyaline casts in urine sediment
In pre-renal azotemia, the kidney parenchyma is not intrinsically damaged. Urinalysis often reveals benign or hyaline casts, reflecting concentrated urine. Fractional excretion of sodium is usually <1% (indicating avid sodium reabsorption), whereas >1% typically indicates intrinsic renal damage. Renal tubular epithelial cell casts or muddy brown granular casts suggest acute tubular necrosis.

201. (c) Diabetic nephropathy
Diabetes mellitus is the single leading cause of CKD worldwide, especially in developed

and a history of recurrent respiratory infections that may damage the airways over time. Low socio-economic status is also recognized to contribute, likely through higher exposure to pollutants and limited healthcare access. High socio-economic status is not a typical risk factor. Hence tobacco smoking, recurrent infections, and coal dust exposure together (1, 2, and 3) are correct for predisposing to COPD.

233. (c) Minimal use of inhaled corticosteroid
An essential goal in asthma management is achieving and maintaining control of symptoms, which often requires consistent use of inhaled corticosteroids (ICS). Although one aims to step down ICS to the lowest effective dose once control is achieved, it is not an explicit goal to minimize ICS to near-zero usage because ICS therapy is the backbone of preventing airway inflammation and exacerbations. By contrast, limiting rescue beta-2-agonist use and avoiding emergency visits are explicit therapy targets.

234. (c) Severe
Under GOLD (Global Initiative for Chronic Obstructive Lung Disease) guidelines, a post-bronchodilator FEV_1/FVC ratio less than 0.70 confirms persistent airflow limitation. COPD severity is then graded by percentage of predicted FEV_1: mild if $FEV_1 \geq 80\%$, moderate if 50–79%, severe if 30–49%, and very severe if <30%. In this case, the FEV_1 is 42% of predicted, which corresponds to severe COPD (Stage 3 by GOLD classification).

235. (c) $PaO_2 < 60$ mm of Hg, $PaCO_2$ 45 mm of Hg
In acute severe asthma, an elevated $PaCO_2$ (above 45 mmHg) indicates hypoventilation or respiratory muscle fatigue, a dangerous sign. Simultaneously, a PaO_2 below 60 mmHg signals significant hypoxemia. Together, these findings suggest impending or actual respiratory failure requiring mechanical ventilation. Normally, during an exacerbation, patients hyperventilate and lower their $PaCO_2$. Once CO_2 begins to rise and oxygen drops severely, urgent intervention with assisted ventilation is warranted to prevent further deterioration.

236. (d) 2, 3 and 4
Certain lung cancers produce paraneoplastic phenomena without direct metastatic spread. These include nephrotic syndrome (particularly membranous nephropathy), Horner's syndrome (often from a Pancoast tumor invading sympathetic ganglia), and Lambert-Eaton myasthenic syndrome (commonly linked with small cell lung cancer). Carcinoid syndrome is usually associated with bronchial carcinoid or metastatic gastrointestinal carcinoids to the liver, not typical non-small cell or small cell lung cancers. Therefore, 2, 3, and 4 correctly identify extra-pulmonary manifestations.

237. (d) Overnight Polysomnogram
This clinical picture is classic for obstructive sleep apnea (OSA): obesity, daytime somnolence, morning headaches, and nocturnal symptoms such as heartburn (possible reflux exacerbated by apneic episodes). The gold standard test to diagnose OSA is an overnight polysomnogram (sleep study). It measures respiratory airflow, oxygen saturation, EEG, and other parameters to confirm apneas or hypopneas. Other listed investigations do not provide direct evidence of sleep-disordered breathing or quantify respiratory disturbances during sleep.

238. (d) 2, 3 and 4
Aspirin can exacerbate asthma in susceptible individuals (aspirin-exacerbated respiratory disease). ACE inhibitors can increase bradykinin and sometimes worsen airway hyper-reactivity. Beta blockers—especially non-selective types—block β_2-receptors in the bronchial smooth muscle, precipitating bronchospasm. Sulfonamides, while they can cause allergic reactions, are not classically associated with triggering or exacerbating asthma. Hence aspirin (2), ACE inhibitors (3), and beta blockers (4) are recognized offenders for asthma exacerbation.

239. (a) 1, 2 and 3
Ileal resection interrupts bile salt reabsorption, leading to fat malabsorption (steatorrhea) and diarrhea. The excess free fatty acids bind to calcium, permitting greater oxalate absorption from the gut, resulting in increased

Click Here to Buy book on Amazon

oxalate stone formation (oxalate-rich renal calculi). Hypernatremia is not a typical direct complication of ileal resection. Therefore, the recognized issues are nephrolithiasis with oxalate stones, diarrhea, and malabsorption of fats, captured by options 1, 2, and 3.

240. (b) 1, 2 and 4
Protein-losing enteropathy from lymphatic obstruction occurs in primary intestinal lymphangiectasia (dilated intestinal lymphatics) and in constrictive pericarditis (where elevated venous pressure impairs lymphatic drainage). Whipple's disease (infection with Tropheryma whipplei) can infiltrate and block lymphatic channels, resulting in malabsorption and protein loss. Eosinophilic gastroenteritis generally involves mucosal eosinophilic infiltration but does not characteristically produce obstruction of lymphatic vessels that leads to protein-losing enteropathy.

241. (c) 1, 2 and 3 only
Key contributors to the anorexia of aging include a diminished sense of taste and smell (leading to decreased food intake), reduced chewing ability (further limiting dietary intake), and slowed gastric emptying (causing earlier fullness). Together, these factors can produce weight loss and nutritional deficits in older adults. Although alterations in certain neuroendocrine signals can also contribute, many standard discussions emphasize the first three factors most directly with regard to early satiety. Hence statements 1, 2, and 3 best fit this definition.

242. (d) 1, 2 and 3
Hepatorenal syndrome (HRS) is a form of renal failure seen in advanced liver disease, especially cirrhosis with ascites. Type-1 HRS indeed features a rapid decline in renal function over about two weeks, while Type-2 HRS is more gradual and stable. Furthermore, it is classically observed in patients with significant ascites. All three statements accurately describe typical features of Type-1 and Type-2 HRS and its association with cirrhotic ascites.

NODIA

243. (c) 2, 3 and 4
Helicobacter pylori is a gram-negative (not gram-positive), spiral-shaped organism. It uses the BabA adhesion molecule to bind to Lewis b antigens on the gastric epithelial cells (statement 2). It also produces urease (statement 3) to create ammonia locally, buffering stomach acid and facilitating colonization. Critically, H. pylori typically adheres to areas of gastric-type epithelium, such as the stomach or patches of gastric metaplasia (statement 4). Hence 2, 3, and 4 are correct, while 1 is incorrect.

244. (a) Omeprazole, Bismuth subcitrate, Metronidazole, Tetracycline
Standard quadruple therapy (OBMT) for refractory H. pylori infection includes a proton pump inhibitor (e.g., omeprazole), bismuth subcitrate, metronidazole, and tetracycline. This combination enhances acid suppression (promoting bacterial clearance), provides direct antimicrobial effects (metronidazole, tetracycline), and includes bismuth, which both suppresses H. pylori and helps protect the gastric mucosa. The other listed regimens involving ofloxacin or corticosteroids (beclomethasone, mometasone) or immunosuppressants (tacrolimus) are not standard eradication therapies.

245. (b) Autosomal recessive
Cystic Fibrosis (CF) is an autosomal recessive genetic disease caused by mutations in the CFTR gene (Cystic Fibrosis Transmembrane Conductance Regulator). Both parents must be carriers of a single defective copy for their child to inherit two defective alleles (one from each parent) and manifest CF. This inheritance pattern differentiates it clearly from autosomal dominant or X-linked conditions. CF primarily affects the lungs, pancreas, and other exocrine glands, resulting in chronic pulmonary infections and malabsorption.

246. (d) 2, 3 and 4
Celiac disease (gluten-sensitive enteropathy) often coexists with other autoimmune or genetic conditions. Selective IgA deficiency, Down syndrome, and Turner's syndrome have well-

documented associations with celiac disease. Type 1 diabetes mellitus is also commonly linked with celiac disease—however, Type 2 diabetes mellitus is not specifically connected. Therefore, IgA deficiency (2), Down syndrome (3), and Turner's syndrome (4) are correct associations, making option 2, 3, and 4 the right choice.

247. (a) 1, 2 and 3
Celiac disease is strongly linked to HLA-DQ2 or DQ8 haplotypes (statement 1) and is caused by gluten intolerance (in wheat, rye, barley—and often oats). In older patients, it may present with varied symptoms, including malabsorption, weight loss, and iron deficiency anemia, among others (statement 3). Far from being contraindicated, small bowel biopsy (duodenal biopsy) is the gold standard for diagnosis; therefore, statement 4 is false. Thus statements 1, 2, and 3 are correct.

248. (a) 10^5 organisms/mL in the urine of apparently healthy asymptomatic patients.
Asymptomatic bacteriuria typically is defined as ≥10^5 CFU (colony-forming units) per mL of urine in individuals without urinary symptoms. In women, two consecutive clean-catch specimens are generally required for confirmation; in men, a single specimen can suffice. Counts below 10^5 CFU/mL may be clinically relevant in symptomatic urinary tract infections, but do not fulfill the classic definition of asymptomatic bacteriuria in an otherwise healthy individual.

249. (d) Diabetes mellitus
Type 1 or Type 2 diabetes mellitus is not a contraindication to renal transplantation; in fact, many transplant candidates have diabetic nephropathy as the cause of end-stage renal disease. An active malignancy, however, is a strong contraindication until remission is assured, and extreme youth (under one year) or advanced age (over 75) can represent relative or practical barriers to transplantation in some centers. Diabetes itself does not preclude successful kidney transplant.

250. (c) 1, 3 and 4
In CKD, the principal causes of anemia are decreased erythropoietin (EPO) production (statement 1), toxic effects of uremia on red cell production (3), and issues with iron utilization—often termed functional iron deficiency (4). While folate and B12 deficiency can occur in the general population, they are not typical, direct mechanisms driving CKD-related anemia. Instead, reduced EPO and poor iron handling are the primary culprits, compounded by the inhibitory effects of accumulated uremic toxins on RBC production.

251. (a) Diabetic nephropathy
Worldwide, diabetic nephropathy (especially in Type 2 diabetes) is the most common cause of end-stage renal disease (ESRD). Chronic hyperglycemia damages the glomeruli, leading to proteinuria, declining renal function, and eventual kidney failure if not controlled. While hypertension and glomerulonephritis are also significant contributors to CKD, diabetes now tops the list in many regions, correlating with the rising global burden of obesity and metabolic disease.

252. (c) T9 – T10
Beevor's sign is identified when the umbilicus moves upward upon attempting to raise the head or trunk from a supine position. This results from weakness in the lower part of the rectus abdominis, typically due to a lesion involving the T9 – T10 segments of the spinal cord. When these lower thoracic nerves are affected, the upper abdominal muscles pull the umbilicus upward, unopposed by the weaker lower fibers. Hence a mid-thoracic cord lesion is most commonly implicated.

253. (d) Plantar reflex shows flexor response
Lower motor neuron (LMN) lesions typically cause flaccid paralysis, diminished or absent deep tendon reflexes, muscle atrophy, and fasciculations (rather than their absence). Clonus and an extensor (Babinski) plantar response are features of upper motor neuron (UMN) lesions. By contrast, LMN lesions preserve the normal (flexor) plantar reflex. Hence of the choices given, the statement that

Downloaded from www.pdf.tube

315. (d) Meig syndrome
Meig's syndrome (benign ovarian fibroma with ascites and pleural effusion) typically produces a transudative effusion rather than an exudate. By contrast, SVC obstruction (often malignant-related), fungal infections, and inflammatory autoimmune conditions such as SLE commonly cause pleural fluid that meets exudative criteria (Light's criteria). Hence, Meig's syndrome is the EXCEPT choice here because its classic teaching is a transudative, not an exudative, effusion.

316. (b) It decreases gastric emptying
Ghrelin is often called the hunger hormone. It is secreted by the stomach, especially during fasting, and it increases appetite. It also increases gastric motility and acid secretion, facilitating digestion. Its levels rise before meals (fasting) and fall after eating. The statement that it decreases gastric emptying is therefore incorrect—ghrelin actually promotes gastric emptying.

317. (d) Pancreatic dysfunction
Fecal elastase is an enzyme secreted by the pancreas. Measuring its level in stool is a sensitive and specific way to evaluate exocrine pancreatic insufficiency, such as in chronic pancreatitis or cystic fibrosis. Low fecal elastase indicates diminished pancreatic enzyme output. Lactose intolerance, inflammatory bowel conditions, and bile acid problems typically require different diagnostic tests (e.g., lactose hydrogen breath test, colonoscopy/biopsy, or bile acid breath tests).

318. (c) MELD score
The Model for End-Stage Liver Disease (MELD) score is currently used to prioritize patients for liver transplantation. It is calculated using serum bilirubin, INR, and serum creatinine, helping estimate short-term mortality risk. The Child-Pugh score, though historically used, now often serves more for prognosis and clinical staging rather than for transplant listing. APACHE is used primarily in ICU settings (e.g., for critical care severity), and Metavir is used to grade liver fibrosis histologically in hepatitis C.

319. (b) 80 % portal vein and 20 % hepatic artery
The liver receives approximately three-fourths (about 75–80%) of its blood flow via the portal vein and the remainder (about 20–25%) from the hepatic artery. While the hepatic artery provides oxygen-rich blood, the portal vein carries nutrient-rich blood from the GI tract. This dual supply is crucial to liver function. The most commonly cited ratio is roughly 80% portal vein and 20% hepatic artery.

320. (b) IgA nephropathy
Certain immune-complex mediated diseases—such as subacute bacterial endocarditis, lupus nephritis, and cryoglobulinemia—commonly present with low serum complement levels (especially low C3) because of complement consumption by circulating immune complexes. In contrast, IgA nephropathy (Berger's disease) typically has normal complement levels and is driven primarily by IgA immune deposits in the mesangium.

NODIA

321. (c) 1, 2 and 3 only
Aphthous ulcers (canker sores) are typically superficial, painful lesions often triggered by stress or hormonal fluctuations (some women note them just before menses). Severe, recurrent cases can require topical or even oral corticosteroids to reduce inflammation. However, they are not considered pre-malignant lesions. Therefore, statement (4)—that they progress to squamous cell carcinoma—is incorrect, making 1, 2, and 3 the correct statements.

322. (c) Normal columnar cells lining the lower oesophagus are replaced by squamous cells
Barrett's esophagus is a well-known complication of chronic GERD in which the normal stratified squamous epithelium of the distal esophagus is replaced by a metaplastic columnar epithelium. This adaptive change is considered pre-malignant, because it predisposes to esophageal adenocarcinoma. The incorrect statement here (option c) reverses the actual process; in Barrett's, the change is to columnar epithelium, not from it.

261. (d) 2, 3 and 4
Neurofibromatosis type 1 (NF1) features include axillary or inguinal freckling (Crowe's sign, 2) and neurofibromas (4). Cutaneous schwannomas (3) can be part of the spectrum of nerve sheath tumors in NF1, though they are more classically referred to as cutaneous neurofibromas; many sources use overlapping terminology. Angiomas (1) are not typical hallmark features of NF1. Therefore, axillary freckles, cutaneous (nerve sheath) tumors, and neurofibromas are the key recognized features.

262. (b) 1, 2 and 4
Parkinson's disease classically presents with bradykinesia (slowness of movement), rigidity (often cogwheel type), and a resting tremor (not listed here) plus a masked or expressionless face. Spastic gait, however, is more associated with upper motor neuron lesions (e.g., in corticospinal tract disease). In Parkinson's, patients typically exhibit a shuffling gait with reduced arm swing, not a spastic one. Thus bradykinesia (1), rigidity (2), and mask-like face (4) are recognized hallmarks.

263. (b) A and B antigens on RBC; no antibody in plasma.
Individuals with AB blood group have both A and B antigens on their red blood cells, and they lack both Anti-A and Anti-B antibodies in their plasma. This allows them to receive blood of any ABO type (universal recipient) but they can only donate to other AB recipients. Option (b) perfectly describes that profile, while the other options mix or omit antigens and antibodies incorrectly.

264. (d) Tuberculosis
Eosinophilia commonly occurs with parasitic infections such as Toxocara or Trichinella and in certain pulmonary conditions like Loeffler's syndrome, which involves transient respiratory symptoms with blood eosinophilia. Mycobacterium tuberculosis infection usually does not cause marked peripheral eosinophilia; instead, it characteristically induces a granulomatous response. Thus TB is the least likely among these options to be associated with eosinophilia.

265. (d) CA-19-9
CA 19-9 is commonly elevated in pancreatic cancer and is often used in conjunction with imaging to follow disease progression or recurrence. Alpha-fetoprotein (AFP) is associated more with hepatocellular carcinoma and some germ cell tumors. CA-125 is primarily linked to ovarian cancer. Calcitonin is secreted by medullary carcinoma of the thyroid. Therefore, CA 19-9 is recognized as the principal tumor marker for pancreatic adenocarcinoma.

266. (b) 1, 2 and 4
G6PD deficiency is X-linked and is common in regions where malaria was or is endemic, because the mutant allele can confer some selective advantage against malaria parasites. Consumption of fava beans (favism) triggers rather than prevents hemolysis, so statement 3 is incorrect. In acute hemolytic crises with severe anemia, packed red blood cell transfusions can be life-saving. Hence 1, 2, and 4 accurately reflect known facts about G6PD deficiency.

267. (c) 1, 3 and 4
Active hemolysis leads to increased reticulocyte count (as the bone marrow responds to anemia), increased unconjugated (indirect) bilirubin, increased urinary urobilinogen (due to higher bilirubin turnover), and decreased haptoglobin (which binds free hemoglobin; it becomes consumed). Conjugated bilirubin typically rises in hepatobiliary disease, not classical hemolysis. Thus 2 (increased conjugated bilirubin) is not the usual hallmark, whereas 1, 3, and 4 reflect ongoing hemolysis.

268. (d) Hemolytic anemia
Dapsone can induce oxidative stress in red blood cells, particularly in individuals with G6PD deficiency, leading to hemolysis. Even in those with normal G6PD levels, Dapsone can cause dose-dependent hemolysis because it produces free radicals that damage RBC membranes. This mechanism distinguishes it from agents that cause iron deficiency, sideroblastic changes,

Click Here to Buy book on Amazon

the plantar reflex shows a flexor response is the correct hallmark of an LMN lesion.

254. (a) Increasing age
Age is by far the greatest risk factor for most types of dementia, including Alzheimer's disease. While family history, alcohol misuse, and chronic systemic illnesses also raise dementia risk, the incidence of dementia rises sharply with advancing age. This increased risk is presumably due to cumulative oxidative stress, vascular changes, and proteinopathies over a longer lifespan, which predispose older individuals to neurodegenerative processes.

255. (a) Diffuse Lewy body dementia
Hallucinations—especially well-formed, vivid visual hallucinations—are a hallmark of Dementia with Lewy bodies (DLB). It typically presents with parkinsonian features, fluctuations in cognition, and prominent visual hallucinations earlier in the disease course. Although patients with other dementias can have delusions or hallucinations in later stages, such occurrences are notably frequent and characteristic in DLB. This distinguishes it clinically from frontotemporal dementia, typical Alzheimer's, and vascular dementia, in which early visual hallucinations are less common.

256. (b) Tension type headache
Tension-type headaches are typically bilateral, often described as a band-like pressure around the head, and may worsen with stress or fatigue. Tenderness of the scalp muscles (or skull vault) is also common. Migraine, by contrast, is often throbbing and unilateral, cluster headaches are strictly unilateral around the orbit, and trigeminal neuralgia causes brief, shooting facial pains. The pattern of gradual worsening through the day and link to stress strongly points to tension-type headache.

257. (a) 1, 2 and 3
Common causes of polyneuropathy include chronic infections (like HIV), nutritional deficiencies and toxicities associated with alcohol abuse, and certain medications (phenytoin is well-documented to cause peripheral neuropathy). Rifampicin is generally not known for causing a peripheral neuropathy; instead, isoniazid (another anti-TB drug) can cause neuropathy if pyridoxine is not co-administered. Thus, HIV (1), alcohol (2), and phenytoin (3) are classic recognized causes among the listed options.

NODIA

258. (c) 3 and 4
Intracerebral hemorrhage (ICH) accounts for roughly 10–15% of strokes, so statement 1 (35% of all strokes) is too high. The most common site of hypertensive ICH is the basal ganglia or thalamus—not the cerebral cortex—making statement 2 incorrect. Cocaine and methamphetamine can precipitate hemorrhagic stroke in young adults (3 is correct), and hypertensive bleeds typically involve spontaneous rupture of small, deep penetrating arteries (4 is correct).

259. (d) 7th Cranial Nerve Palsy
Inability to close the eye on one side indicates involvement of the facial nerve (cranial nerve VII), which innervates the muscles of facial expression. The presence of vesicles in or around the ear canal (Ramsay Hunt syndrome) further confirms that a herpes zoster infection in the geniculate ganglion is likely causing the facial nerve palsy. The 8th cranial nerve (vestibulocochlear) affects hearing and balance, while CNs III and V govern other motor/sensory functions.

260. (a) 1, 2 and 3
A lesion in the dominant (usually left) parietal lobe—particularly around the angular gyrus—can produce language difficulties (dysphasia), acalculia, dyslexia or alexia, and other components of Gerstmann's syndrome. Contralateral (often left-sided) neglect is typically linked to a non-dominant (usually right) parietal lesion. Hence dysphasia (1), acalculia (2), and dyslexia (3) are recognized deficits with a dominant parietal lesion, whereas contralateral neglect (4) is more characteristic of the non-dominant side.

methotrexate are recognized risk factors, while (4) azathioprine is less so.

276. (d) SGLT-2 inhibitors
Sodium-glucose co-transporter-2 (SGLT-2) inhibitors (e.g., canagliflozin, dapagliflozin) reduce glucose reabsorption at the proximal renal tubule, promoting glucosuria and thereby lowering blood glucose. Alpha-glucosidase inhibitors act in the gut, slowing carbohydrate digestion. GLP-1 analogues (like liraglutide) and DPP-4 inhibitors (like sitagliptin) primarily affect incretin pathways, not the kidney's glucose transport. Thus SGLT-2 inhibitors uniquely target glucose handling in the proximal tubule among these listed agents.

277. (b) 1, 2 and 4
Insulin aspart and insulin lispro are classed as rapid-acting analogs, often grouped under short acting for practical purposes because their onset is quick and duration is relatively brief. Regular insulin is the classic short-acting human insulin. Glargine, on the other hand, is a long-acting basal insulin. Therefore, aspart (1), lispro (2), and regular insulin (4) are in the short/rapid category, while glargine (3) is not.

278. (b) 1, 2 and 4
PCOS (polycystic ovary syndrome) and congenital adrenal hyperplasia both increase androgen levels, causing hirsutism. Certain androgen-secreting ovarian tumors can also produce excessive androgens. By contrast, primary hypothyroidism usually does not produce true hirsutism (though it may cause coarse, brittle hair). Thus the prime culprits in the list for abnormal hair growth are PCOS, CAH, and ovarian tumors, matching statements 1, 2, and 4.

279. (c) 1, 3 and 4
Hypothyroidism indeed is more frequent in women (statement 1), and pregnancy usually requires a higher dose of levothyroxine (3). Meanwhile, Autoimmunity is a rare aetiopathogenesis (statement 2) is incorrect—Hashimoto's thyroiditis is the most common cause in iodine-sufficient areas. Although elevated TSH is the hallmark of untreated hypothyroidism, over-replacement or subclinical hyperthyroidism (i.e., suppressed TSH) increases fracture risk. Hence 1, 3, and 4 are accepted as correct in this context, while 2 is clearly false.

280. (b) 1, 2 and 4
Classic diabetes insipidus features profuse, dilute urine (low osmolality, low specific gravity) and compensatory polydipsia (statements 1 and 2). If the thirst center is damaged or if the patient cannot drink, the inability to replace free water can be life-threatening (4). Lithium is actually a cause of nephrogenic DI, not a treatment. Desmopressin or measures to correct underlying issues are useful in therapy, not lithium.

281. (a) 1, 2 and 3
This clinical picture is highly suggestive of hypothyroidism (fatigue, constipation, weight gain, possible effusion impacting hearing). The most appropriate initial investigations are serum TSH and free T_4 to confirm thyroid underactivity, and anti–thyroid peroxidase (TPO) antibodies to assess for autoimmune (Hashimoto's) etiology. A radionuclide thyroid scan is more useful in hyperthyroidism or evaluating nodules rather than diagnosing straightforward primary hypothyroidism. Thus (1), (2), and (3) are the key tests.

NODIA

282. (a) 1, 2 and 3
In acute adrenal crisis, the mainstays of treatment are immediate volume resuscitation with intravenous normal saline (1) and prompt IV hydrocortisone (2). Hypoglycemia can occur, so adding IV dextrose (e.g., 5–10% glucose) is also appropriate (3). Potassium is often elevated or normal in primary adrenal insufficiency, so routine KCl infusion (4) is not indicated unless specific hypokalemia exists. Rapid intervention with fluids and steroids is life-saving while awaiting lab confirmation (serum cortisol).

283. (c) Chronic metabolic acidosis

Marfan's syndrome is associated with a tall, thin habitus, arachnodactyly (long spider-like fingers), scoliosis, high-arched palate, and joint hyper mobility. Cardiovascular manifestations often include mitral valve prolapse or regurgitation, which can produce a pansystolic murmur. Spontaneous pneumothorax can occur due to the presence of apical blebs in the lungs. These combined features align well with Marfan's syndrome and do not match the typical presentations of Takayasu's arteritis, Raynaud's syndrome, or classic rheumatic heart disease.

300. (d) To evaluate the treatment efficacy of anti anginal drugs
Exercise stress testing (treadmill testing) is indicated to diagnose ischemic heart disease, especially in patients with suspected stable angina, and to stratify risk in those with known coronary artery disease. It is also used after re vascularization to assess prognosis or the success of the procedure. However, using it routinely to evaluate the efficacy of anti anginal drugs is not a standard indication, making option (d) the correct EXCEPT answer here.

301. (a) Massive Pulmonary Embolism
Kussmaul's sign refers to a paradoxical rise in jugular venous pressure (JVP) on inspiration. It is commonly observed in conditions involving impaired right ventricular filling, such as restrictive cardiomyopathy, constrictive pericarditis, and right ventricular infarction. Although acute right-sided strain occurs in massive pulmonary embolism, it does not typically produce a classic Kussmaul's sign. Thus, among the listed options, massive pulmonary embolism is the condition least associated with this finding.

302. (b) Hypothyroidism
Atrial fibrillation is commonly associated with hyperthyroidism (overactive thyroid), various valvular diseases (especially mitral stenosis/regurgitation), hypertension, and acute myocardial infarction. In contrast, hypothyroidism (an underactive thyroid) does not typically precipitate atrial fibrillation. Indeed, hypothyroidism often slows the heart rate (bradycardia) rather than causing this arrhythmia. Therefore, among the options given, hypothyroidism is the one that is not a usual cause of AF.

303. (a) Atrial depolarisation
In a standard electrocardiogram, the P wave reflects the depolarization of both atria before they contract. The QRS complex corresponds to ventricular depolarization, and the T wave represents ventricular repolarization. Atrial repolarization, though it does occur, is typically masked by the larger QRS complex and is not separately visible on a standard ECG trace.

304. (d) Injection Adenosine
Ventricular tachycardia (VT) management frequently includes electrical cardioversion (DC shock) if hemodynamically unstable, and antiarrhythmic drugs such as lignocaine (class IB) or amiodarone (class III). Adenosine is generally reserved for diagnosing or terminating supraventricular tachycardias (e.g., AV nodal re-entrant tachycardia). It has little role in true VT, making it the incorrect choice for treating ventricular tachycardia.

305. (c) Aliskiren
Aliskiren is the first-in-class direct renin inhibitor that specifically blocks the activity of renin, thereby reducing the conversion of angiotensinogen to angiotensin I. Azilsartan and Lisinopril act on downstream components of the renin-angiotensin-aldosterone system (angiotensin II receptor blocker and ACE inhibitor, respectively), while Benedipine is a calcium channel blocker.

306. (d) Aortic stenosis
A wide pulse pressure (large difference between systolic and diastolic pressures) is characteristically seen in conditions such as aortic regurgitation, thyrotoxicosis (due to hyperdynamic circulation), and patent ductus arteriosus. Aortic stenosis, on the other hand, often leads to a narrow pulse pressure because the left ventricle ejects blood through a significantly stenosed aortic valve, limiting the rise in systolic pressure and thereby reducing pulse pressure.

Downloaded from www.pdf.tube

defined by recurrent binge eating in the same sense as bulimia nervosa.

291. (c) L_4
The patellar (knee) jerk reflex primarily tests the L2–L4 segments, but L4 is the most clinically relevant single root for the quadriceps reflex. Weak or absent knee jerk with potential quadriceps weakness often implicates the L3–L4 disc/nerve involvement. L5 nerve root issues more often affect dorsiflexion (ankle or big toe), and S1 is usually tested via the ankle jerk.

292. (a) 1, 2, 3 and 4
Retinoblastoma (germline RB1 mutation), Li-Fraumeni syndrome (TP53 mutations), Xeroderma pigmentosum (defective nucleotide excision repair genes), and Peutz-Jeghers syndrome (STK11 mutation) are all classic examples of inherited cancer susceptibility syndromes. Each has a distinct genetic lesion conferring increased tumor risk.

293. (a) 1, 2 and 3
Trinucleotide repeat expansions underlie Huntington's disease (CAG repeats), myotonic dystrophy (CTG repeats), and Friedreich's ataxia (GAA repeats). Klinefelter syndrome is a chromosomal aneuploidy (47, XXY), not a repeat-expansion disorder. So (1) Huntington's, (2) Myotonic dystrophy, and (3) Friedreich's ataxia are the correct associations.

294. (b) Beta-2 adrenoceptor antagonist
Management of severe hyperkalemia includes IV calcium gluconate to stabilize the cardiac membrane, agents to shift potassium intracellularly (e.g., insulin + glucose, beta-2 agonists such as nebulized salbutamol), sodium bicarbonate (if acidotic), and dialysis if needed. A beta-2 adrenoceptor antagonist (such as propranolol) would worsen hyperkalemia by hindering potassium entry into cells. Thus (b) is not part of standard therapy.

295. (c) Pulmonary embolism
Type 2 (hypercapnic) respiratory failure arises from inadequate ventilation. Conditions that impair the mechanics of breathing or neuromuscular drive—like Guillain-Barré syndrome (muscle weakness), upper airway obstruction, or flail chest—can cause CO_2 retention. Pulmonary embolism predominantly leads to acute V/Q mismatch and hypoxemia without hypercapnia (Type 1 respiratory failure), unless in catastrophic situations with profound shock. Hence PE is not a usual cause of Type 2 respiratory failure.

NODIA

296. (b) Dilated cardiomyopathy
Severe hypocalcemia can impair myocardial contractility, occasionally presenting as heart failure or a dilated cardiomyopathy picture. Nausea and vomiting are more frequently linked with hypercalcemia. Likewise, hypercalcemia more commonly triggers polyuria and polydipsia because of its effect on the renal tubules and thirst regulation. By contrast, hypocalcemia is notorious for neuromuscular excitability (tetany, paresthesias), prolonged QT interval, and possible heart dysfunction rather than the GI or renal findings typical of hypercalcemia.

297. (d) Atrial fibrillation
An episode of atrial fibrillation precipitated by an alcohol binge is classically referred to as holiday heart syndrome. Alcohol intake, especially in excessive amounts, can irritate the atria and disrupt normal electrical conduction, leading to atrial fibrillation. Other arrhythmias are possible, but atrial fibrillation is particularly characteristic in the setting of acute alcohol excess.

298. (d) Atorvastatin
Among these medications, statins (e.g., Atorvastatin) are well known to cause myalgia or muscle pain, and in some cases more serious myopathies like rhabdomyolysis. In a patient with diabetes and coronary artery disease, a statin is commonly prescribed for dyslipidemia and cardiovascular risk reduction. Muscle pain is not a typical adverse effect of aspirin, glimepiride, or enalapril, so Atorvastatin is the most likely culprit.

299. (c) Marfan's syndrome

Among critically ill populations—especially those with sepsis, shock, or end-organ hypo perfusion—lactic acidosis and other causes of metabolic acidosis are very frequent. While acute forms predominate, chronic or ongoing metabolic acidosis can also occur in prolonged illness or organ failure. Respiratory alkalosis or acidosis may be seen but is often more transient or influenced by mechanical ventilation. Metabolic alkalosis is less common in the severely ill. Hence chronic metabolic acidosis is generally cited as the most prevalent disturbance.

284. (d) 1, 2, 3 and 4
All listed conditions can contribute to weight gain, yet can also be addressed or reversed. Insulinoma (1) over-secretes insulin, causing excessive food intake and adiposity; surgical removal can reverse this. Cushing's syndrome (2) may be managed by correcting hypercortisolism. Sulfonylureas (3) stimulate insulin release and lead to weight gain, which can be mitigated by changing medications. Beta-blockers (4) can reduce metabolic rate or exercise capacity, but switching to alternative agents can lessen weight gain.

285. (a) 1, 2 and 3
Parenteral nutrition frequently leads to hyperglycemia (1) if dextrose infusion is excessive. Over long durations, TPN can cause progressive liver dysfunction—ranging from steatosis to cholestasis and eventually cirrhosis (2). Fluid overload (3) can occur when intravenous volumes are high. Hyper phosphatemia is not typically a problem in TPN; more commonly, re feeding syndrome features hypophosphatemia. Thus 1, 2, and 3 are recognized metabolic complications, while 4 (hyper phosphatemia) is not usual.

286. (d) Mixed connective tissue disorder
High titers of anti-U1-ribonucleoprotein (anti-RNP) are characteristically associated with Mixed Connective Tissue Disease (MCTD). Patients often present with overlapping features of systemic lupus erythematosus, scleroderma, and polymyositis. In contrast, Sjögren's syndrome is tied to anti-SSA/SSB (anti-Ro/La), diffuse systemic sclerosis to anti-Scl-70 (anti–topoisomerase I), and sarcoidosis does not center on this antibody.

287. (d) 40 – 50 years
Polyarteritis nodosa (PAN), a necrotizing vasculitis affecting medium-sized arteries, most frequently occurs in adults, commonly in middle age. Epidemiologic data show the highest incidence clusters in the 40–60 year range, so of the options given, 40–50 years is the best fit. Pediatric cases can occur but are less common.

288. (a) Bisphosphonates
Bisphosphonates (e.g., alendronate, risedronate) are considered the first-line pharmacologic therapy in most patients with osteoporosis to reduce the risk of osteoporotic fractures. They inhibit osteoclast-mediated bone resorption, improving bone density. Denosumab (RANKL inhibitor) is another potent agent but often used when patients cannot tolerate or fail bisphosphonates. Teriparatide (PTH analog) is generally reserved for severe or refractory cases. Raloxifene (a selective estrogen receptor modulator) can help spinal bone density but is not typically first-line overall.

289. (b) 1, 2 and 4
Amitriptyline, dosulepin (also known as dothiepin), and imipramine are all classical tricyclic antidepressants (TCAs). Paroxetine, on the other hand, is a selective serotonin reuptake inhibitor (SSRI). Hence (1) amitriptyline, (2) dosulepin, and (4) imipramine are the TCA agents, while (3) paroxetine is not.

290. (a) Bulimia nervosa
Bulimia nervosa is characterized by recurrent episodes of binge eating followed by inappropriate compensatory behaviors (e.g., self-induced vomiting, laxative abuse). By contrast, anorexia nervosa involves severe restriction of intake or sometimes binging/purging but with significant underweight status. Post-partum depression and certain personality disorders may affect eating patterns but are not typically

Click Here to Buy book on Amazon

307. (a) Bronchiectasis
The signet-ring sign on a chest CT refers to a bronchus (the ring) that is abnormally dilated and appears larger than its accompanying pulmonary artery (the signet), indicative of bronchiectasis. In normal anatomy, the bronchus is usually smaller than or equal to the size of the accompanying artery. This finding helps distinguish bronchiectasis from other lung pathologies.

308. (c) Severe persistent
According to stepwise therapy guidelines for asthma, long-term oral corticosteroids are typically reserved for patients with severe persistent asthma who do not achieve adequate control on high-dose inhaled corticosteroids plus additional controllers. Mild or moderate persistent asthma is usually managed with inhaled corticosteroids (low- or moderate-dose), inhaled long-acting bronchodilators, and other add-on therapies before escalating to oral steroids.

309. (c) Lung biopsy
This clinical presentation raises suspicion for cystic fibrosis (CF), which can present with pancreatic insufficiency (malabsorption and steatorrhea), bronchiectasis, and diabetes (due to pancreatic involvement). Common diagnostic investigations include sweat chloride testing, 24-hour fecal fat measurement, genetic testing (DNA sequencing of CFTR), and imaging (CT-chest). A lung biopsy is not part of the routine diagnostic work-up for CF.

310. (b) Actinomycetes
Farmer's lung is a type of hypersensitivity pneumonitis caused by inhaling thermophilic actinomycetes (often from moldy hay). The organisms most frequently implicated belong to the family of actinomycetes (e.g., Micropolyspora faeni). Prolonged exposure leads to an immune-mediated inflammatory response in the lungs. Penicillium, Aspergillus, and Candida can cause other respiratory problems but are not classically linked to Farmer's lung.

311. (b) Severe COPD
Type II respiratory failure (hypercapnic respiratory failure) implies elevated arterial CO_2 ($PaCO_2$) with accompanying hypoxemia. Chronic obstructive pulmonary disease (COPD) is the classic cause of chronic type II respiratory failure, due to persistent airway obstruction and air trapping, which impair CO_2 elimination. While severe pneumonia or asthma can acutely lead to type II failure, COPD is the most common culprit in the chronic setting.

NODIA

312. (d) Cough
Cough is extremely common across a wide variety of respiratory conditions—ranging from mild viral infections to chronic diseases like bronchitis, asthma, or lung cancer. While breathlessness (dyspnea) is also frequent, cough tends to be more universally reported in primary care settings because even minor airway irritation triggers it. Chest pain and hemoptysis occur in more specific circumstances and are less common overall.

313. (b) Anti-leukotrienes
In acute severe asthma, immediate bronchodilation is paramount, typically achieved via high-dose inhaled short-acting beta-2 agonists (e.g., Albuterol), oxygen, IV steroids, and sometimes IV magnesium sulfate and/or aminophylline if initial measures fail. Anti-leukotriene drugs (e.g., montelukast) are generally considered add-on therapies in chronic or maintenance asthma management, not standard agents in the emergency treatment of acute severe asthma.

314. (b) 2 and 4
Egophony (EEE → AY) is classically found in consolidation, not interstitial fibrosis, so statement 1 is incorrect. Whispered pectoriloquy (statement 2) is indeed a sign of consolidated lung. Monophonic wheeze (statement 3) typically indicates a single airway obstruction rather than the generalized airflow limitation of asthma (which produces polyphonic wheezes), so statement 3 is not characteristic. A hyper-resonant percussion note (statement 4) is a classic finding in pneumothorax. Thus, only statements 2 and 4 are correct.

or spur cell formation. Therefore, hemolytic anemia is the recognized complication of Dapsone.

269. (a) 1, 2 and 3
During pregnancy, demands for iron and folate increase substantially, often exceeding dietary intake, so iron stores (1) and folate levels (3) may drop if not supplemented. Vitamin B12 levels can also decline in pregnant women with insufficient intake (2). However, coagulation factors (such as fibrinogen) generally increase in pregnancy, contributing to a hypercoagulable state. Hence 1, 2, and 3 are decreased, while 4 is not.

270. (b) Apixaban
Apixaban is a direct Factor Xa inhibitor. Rivaroxaban and Edoxaban share the same mechanism. By selectively inhibiting Factor Xa, these drugs reduce thrombin generation and clot formation. Tirofiban is a GP IIb/IIIa receptor antagonist (antiplatelet), Dabigatran is a direct thrombin (Factor IIa) inhibitor, and Prasugrel is a P2Y12 ADP receptor inhibitor (also antiplatelet). Thus only Apixaban meets the criterion of direct Xa inhibition.

271. (b) High dose glucocorticoids with IVIgG
Severe thrombocytopenia (platelet count of 6,000/μL) with active bleeding—evidenced by menorrhagia, petechiae, and mucosal (mouth) blisters—suggests immune thrombocytopenic purpura (ITP) in a critical phase. The most rapid way to raise the platelet count is combining high-dose corticosteroids with IVIgG, particularly for life-threatening or serious bleeding. Glucocorticoids alone can be first-line for milder ITP, but here the severity and active bleeding typically prompt both treatments for an immediate effect.

272. (c) Megaloblastic anemia
Macrocytosis (high MCV around 128 fL), hypersegmented neutrophils, and severe anemia strongly suggest megaloblastic anemia, typically due to vitamin B12 or folate deficiency. The patient's vegetarian diet raises suspicion of inadequate B12 intake, plus the neurological symptoms (paresthesias) further point toward B12 deficiency. Iron deficiency typically shows microcytosis (low MCV). Myelophthisic anemia involves marrow infiltration, and aplastic anemia often presents with pancytopenia without the classic macro-oval RBCs and hyper segmented neutrophils seen here.

273. (a) Xerosis
Although diabetic dermopathy (shin spots) is classically described, among the listed options xerosis (dry skin) is very frequently encountered in diabetes. Chronic hyperglycemia and peripheral vascular compromise can reduce skin hydration, leading to dryness and itching. Acanthosis nigricans is a well-known sign of insulin resistance but is less common overall than simple dryness. Lichen planus and necrobiosis lipoidica diabeticorum occur less frequently. Hence xerosis is recognized as the most common dermatologic manifestation among these choices.

274. (a) Critical illness
In severe or prolonged critical illnesses (e.g., sepsis, liver failure), the body's glycogen stores can be depleted and gluconeogenesis may be impaired, leading to hypoglycemia. By contrast, both Cushing's disease and exogenous cortisol therapy favor hyperglycemia due to heightened gluconeogenesis and insulin resistance. Metabolic syndrome is likewise characterized by insulin resistance and tends to cause elevated blood glucose rather than low blood sugar. Thus among the options, critical illness is the clear cause of hypoglycemia.

275. (a) 1, 2 and 3
Chronic phenytoin can alter vitamin D metabolism and impair bone density. Lithium, via effects on the parathyroid axis (often contributing to hyperparathyroidism), also predisposes to reduced bone mass over time. Long-term methotrexate use may diminish bone turnover and contribute to bone loss. Azathioprine is not a well-established culprit for osteoporosis compared with the others. Hence (1) phenytoin, (2) lithium, and (3)

Downloaded from www.pdf.tube

323. (b) Boerhaave's syndrome
Boerhaave's syndrome is a full-thickness spontaneous rupture of the esophagus, typically occurring after forceful vomiting or retching. It is a surgical emergency, often presenting with severe chest pain, subcutaneous emphysema, and mediastinitis if not recognized promptly. Menetrier's disease, achalasia, and Barrett's esophagus do not typically present with acute spontaneous perforation in this manner.

324. (d) Acute glomerulonephritis
H. pylori is implicated in several extra-gastric conditions, including some cases of unexplained vitamin B12 deficiency, iron deficiency anemia (where no obvious GI bleed is found), and immune-mediated platelet destruction (as in idiopathic thrombocytopenic purpura). Eradicating H. pylori can improve or resolve these problems in certain patients. However, acute glomerulonephritis is not routinely linked to H. pylori eradication benefit, making option (d) the correct EXCEPT.

325. (b) 10 to 12 gm/dL
Guidelines recommend partially correcting anemia in CKD to a hemoglobin target around 10–12 g/dL, rather than normalizing it fully, because trials have shown that aiming for higher Hb (≥13 g/dL) in CKD patients can increase the risk of cardiovascular events (e.g., stroke and hypertension). Hence, the safest and most accepted therapeutic target lies in the moderate correction range of 10–12 g/dL.

326. (a) Adynamic bone disease
In chronic kidney disease, secondary hyperparathyroidism commonly leads to high-turnover bone disease like osteitis fibrosa cystica. However, when PTH levels are too low (often due to over-suppression by excessive vitamin D analog therapy or other factors), patients can develop adynamic bone disease, characterized by minimal bone remodeling. Tumoral calcinosis and calciphylaxis are typically associated with calcium/phosphate deregulation (often with high PTH or advanced mineral imbalance).

327. (b) It is usually associated with marked proteinuria
Adult polycystic kidney disease (APKD) follows an autosomal dominant pattern and frequently presents with hypertension in early adulthood. Cerebral berry aneurysms also have a recognized association. While patients can have mild to moderate proteinuria, they do not typically display the marked or nephrotic-range proteinuria seen in primary glomerular diseases. Thus, stating that APKD is usually associated with marked proteinuria is an exaggeration/ incorrect.

328. (d) 1, 2 and 3
Although some references set the oliguria cutoff at <400 mL/day, <300 mL/day is also cited in certain texts. Anuria is commonly defined as a urine output <50 mL/day, indicating virtually no renal excretion. Polyuria generally refers to urine output >3 L/day. Thus, as stated, all three definitions (1, 2, and 3) can be considered accurate for an adult patient, making option (d) correct.

NODIA

329. (b) Pyelonephritis
Urinary casts form in the distal convoluted tubule or collecting duct and reflect the cellular elements within the tubules. White blood cell casts typically indicate infection or inflammation originating in the kidney itself—most classically seen in acute pyelonephritis. RBC casts point toward glomerulonephritis, whereas broad waxy casts occur in chronic renal failure. Renal stones or papillitis may cause hematuria or flank pain, but they do not typically produce WBC casts.

330. (d) Immunosuppressants are to be used for crescentic glomerulonephritis
This presentation is classic for acute post-streptococcal glomerulonephritis (APSGN): low C3, recent strep infection, raised ASO/ antiDNase. Usually, the diagnosis is made clinically and by labs, so a renal biopsy is rarely needed. Active infection can be treated with antibiotics, and management is primarily supportive (monitor fluid overload, BP, etc.). Routine immunosuppression is generally not used for typical APSGN; even if there are some crescents, most cases still resolve with supportive care.

Conn syndrome (primary hyperaldosteronism) can produce alkalosis and resultant tetany (2). Turner syndrome is associated with lymphedema (particularly of the hands and feet at birth) (3). Kallman syndrome, involving GnRH deficiency, is characteristically linked to anosmia (1). Cushing syndrome (hypercortisolism) can predispose to avascular necrosis of the hip (4). Thus, A-2, B-3, C-1, D-4 is the correct matching sequence.

393. (c) Vitamin D toxicity
Huntington's disease leads to a progressive dementia and movement disorder, while Alzheimer's disease is the most common cause of dementia in older adults. Thiamine deficiency can cause Wernicke–Korsakoff syndrome, leading to severe memory dysfunction and confusion, often considered within the spectrum of dementia-like syndromes. By contrast, Vitamin D toxicity is not known to produce a primary dementia syndrome, although it can cause other metabolic disturbances.

394. (a) 1–2 ng/ml
Digoxin has a relatively narrow therapeutic index, and levels generally in the range of 0.5–2 ng/mL are considered therapeutic. Above that range, the risk of digoxin toxicity (manifesting with cardiac arrhythmias, gastrointestinal symptoms, and neurological disturbances) increases significantly. Monitoring serum digoxin concentration, along with checking electrolytes (particularly potassium) and renal function, is essential for patients on long-term therapy to ensure safety and efficacy.

395. (d) AV reentry tachycardia
A narrow QRS tachycardia (QRS duration <120 ms) typically indicates supraventricular origin. Sudden onset palpitations with a regular narrow QRS rhythm are most often due to AV nodal reentrant tachycardia (AVNRT) or an AV reentry involving an accessory pathway (AVRT). Pre-excited tachycardia usually indicates a pathway like in WPW syndrome and may show a wide QRS unless it conducts orthodromically. Ventricular tachycardia usually shows a wide QRS, and PSVT with aberrancy also typically has wider QRS morphology.

396. (b) 2 and 3
In acute pulmonary edema, the patient is typically placed in an upright position (not supine) to decrease venous return and reduce pulmonary congestion. High-flow oxygen (if hypoxic) and intravenous loop diuretics (like furosemide) are mainstays of initial treatment. Nitrates (e.g., sublingual or IV nitroglycerin) are also often employed to reduce preload and afterload, improving symptoms. Therefore, Give high flow, high concentration oxygen and Administer Furosemide intravenously are correct measures, but statements 1 and 4 are incorrect.

397. (b) Hyperkalaemia
Hypomagnesemia often predisposes to torsade de pointes by prolonging the QT interval. Certain drugs like macrolide antibiotics (e.g., erythromycin) or antiarrhythmics (e.g., amiodarone) can also prolong the QT interval. Hyperkalaemia, on the other hand, typically causes peaked T waves, widened QRS, and can shorten the QT interval rather than prolong it. It can progress to dangerous arrhythmias, but does not produce a classic QT prolongation.

398. (c) Rheumatic fever
Rheumatic fever can present with migratory polyarthritis (often affecting large joints like knees and ankles), fever, and cardiac involvement. Prolongation of the PR interval on ECG suggests possible carditis or conduction abnormalities, both of which fit with rheumatic fever. Although a preceding sore throat (Group A strep infection) is classic, it may be absent in some patients. Splenomegaly can occur in various systemic illnesses but does not exclude rheumatic fever. In India, rheumatic fever remains a relatively common cause of such findings.

399. (c) Left heart failure
Acute left-sided heart failure (often manifesting as acute pulmonary edema) is suggested by rapid onset dyspnea, orthopnea, bibasilar crackles (crepitations), and a low blood pressure with a weak, rapid pulse. Right-sided failure typically

Click Here to Buy book on Amazon

STUDYING FROM PDFs?

THINK AGAIN.

If you are studying only from PDFs,
you are wasting valuable time.

Research shows that learning from

PRINTED BOOKS has up to

4× HIGHER RETENTION

than studying from screens.

PRINT BOOK = BETTER MEMORY

PDF = LOWER RETENTION

Those who study from **PRINTED BOOKS**
move **AHEAD.**

Others are left **BEHIND**
in competition.

In competitive exams,
being average is not enough.

STAY ONE STEP AHEAD.

rigidity, and postural instability. Micrographia (progressively smaller handwriting) is also a classic symptom. Vascular or frontotemporal dementias involve primarily cognitive/behavioral deficits, whereas Alzheimer's disease presents with progressive memory loss. The combination of these characteristic motor findings and the handwriting changes points toward Parkinson's disease.

339. (c) Frontal gait disorder
A wide-based, magnetic gait with freezing, short shuffling steps, and difficulty initiating turns—yet normal cerebellar function (heel-shin test)—strongly suggests a frontal gait disorder (sometimes called gait apraxia). In Parkinson's disease, the gait is classically shuffling and narrow-based, but not typically wide-based. Cerebellar ataxia or sensory ataxia would usually alter coordination tests (like heel-shin). Frontal gait disorder is often associated with subcortical white matter changes or normal pressure hydrocephalus.

340. (d) Hypothermia
Cushing's triad (or reflex) involves three key physiologic responses to increased intracranial pressure: hypertension, bradycardia, and irregular respirations. They represent the body's attempt to maintain cerebral perfusion when ICP rises. Hypothermia is not typically part of this triad (some patients may have altered temperature regulation in severe brain injury, but it is not a hallmark of Cushing's reflex).

341. (c) Post-LP headache is most severe upon waking up
A typical post–lumbar puncture headache often starts within 48 hours of the procedure, worsens on sitting or standing (due to reduced CSF pressure in the upright posture), and improves on lying down or with caffeine. It tends not to be worst upon waking (when the patient has been lying flat); rather, it is less severe after rest and becomes more severe throughout the day if upright. Therefore, (c) is the feature that is NOT consistent.

342. (b) Bcr-Abl assay
When evaluating recurrent thrombotic events, one checks for inherited or acquired thrombophilias (e.g., antiphospholipid syndrome, protein C or S deficiency, antithrombin deficiency). Testing for the Bcr-Abl fusion gene (the hallmark of chronic myelogenous leukemia) is not part of routine thrombosis workup. Bcr-Abl testing is indicated if a myeloproliferative disorder or leukemia is suspected. Thus, for standard recurrent clotting episodes, the Bcr-Abl assay is NOT appropriate.

343. (b) Megaloblastic anemia
Reactive (secondary) thrombocytosis occurs in many conditions with increased cytokine or marrow stimulation, including hemolytic anemias, acute blood loss, post-splenectomy states, or chronic inflammation (e.g., rheumatoid arthritis). In megaloblastic anemia (due to B12 or folate deficiency), platelet counts are often normal or can be reduced, but they are not typically elevated in a reactive fashion. Hence, megaloblastic anemia is the exception.

344. (c) Hemophilia–B
Cryoprecipitate is rich in fibrinogen, factor VIII, factor XIII, and von Willebrand factor. It can be used in Hemophilia A (factor VIII deficiency), von Willebrand disease (especially older practice), and hypofibrinogenemia. Hemophilia B is a deficiency of factor IX, which is not contained in cryoprecipitate. Instead, patients with Hemophilia B require factor IX concentrates or prothrombin complex concentrates.

345. (a) Autosomal recessive trait
Pyruvate kinase deficiency is a cause of chronic non-spherocytic hemolytic anemia, where reduced ATP in red cells leads to shortened RBC lifespan. It is inherited in an autosomal recessive manner, meaning both copies of the gene (usually on chromosome 1) must be mutated. Patients present with hemolysis, jaundice, and splenomegaly, and diagnosis is confirmed by measuring RBC pyruvate kinase activity or genetic testing.

346. (d) Conn's syndrome
In sickle cell disease, vaso-occlusive crises can lead to acute chest syndrome (respiratory

Downloaded from www.pdf.tube

distress, chest pain, pulmonary infiltrates), aplastic crises (often triggered by parvovirus B19 infection), and splenic sequestration crises (massive pooling of blood in the spleen). Conn's syndrome (primary hyperaldosteronism) is unrelated to sickle cell disease pathophysiology and therefore is not a recognized complication.

347. (c) Both infectious mononucleosis and chronic leukaemia
Infectious mononucleosis (commonly due to Epstein-Barr virus) classically presents with fever, lymphadenopathy, and splenomegaly. Similarly, some chronic leukemias (e.g., chronic lymphocytic leukemia) can also manifest with lymph node enlargement, splenomegaly, and low-grade fever. Therefore, both conditions can feature this triad.

348. (b) Haemoglobin H disease
In alpha-thalassemia, humans have four alpha-globin genes (two on each chromosome 16). Deletion of three of these alpha genes results in Hemoglobin H disease, characterized by significant but not fatal hemolytic anemia. Deletion of all four alpha genes causes hydrops fetalis (often incompatible with life). Hemoglobin F is the fetal hemoglobin (two alpha, two gamma chains) and is not specifically the result of three alpha gene deletions.

349. (b) Risk of developing CML is increased in monozygotic turns
Chronic Myeloid Leukemia (CML) is indeed a clonal malignancy of hematopoietic stem cells, defined by the BCR-ABL1 fusion gene (the Philadelphia chromosome). With tyrosine kinase inhibitors (TKIs), long-term survival often exceeds 80–85%. There is no established, marked increase in CML incidence among monozygotic twins, making that claim (option b) the incorrect statement (i.e., it is NOT true).

350. (a) 1, 2 and 3
The hallmarks of multiple myeloma include a clonal proliferation of malignant plasma cells in the bone marrow (generally >10%), a monoclonal protein spike in the serum or urine (the M protein), and typically lytic skeletal lesions (punched-out lesions on imaging). Blastic (sclerotic) lesions are not characteristic of classic multiple myeloma. Hence, criteria 1, 2, and 3 correctly reflect typical diagnostic factors, making option (a) correct.

351. (a) Ig G
Among monoclonal gammopathies like multiple myeloma, IgG is the most commonly produced immunoglobulin subtype, followed by IgA. Light chain–only disease (Bence Jones proteins) also occurs but is not the single most frequent variety. IgD myeloma is rare. Therefore, IgG is the predominant immunoglobulin in plasma cell dyscrasias.

352. (d) Fasting plasma glucose ≥ 110 mg/dL
Diagnostic criteria for diabetes include: a fasting plasma glucose ≥126 mg/dL; a random plasma glucose ≥200 mg/dL with classic symptoms; an OGTT 2-hour value ≥200 mg/dL; or an HbA1c ≥6.5%. While 110 mg/dL is above normal fasting (which should be <100 mg/dL), it is not sufficient for a diabetes diagnosis. The recognized fasting threshold for diagnosing diabetes is 126 mg/dL.

353. (d) Free T4 and TSH level
Menstrual irregularities, weight gain, and hair loss are classic symptoms of hypothyroidism. The first-line investigation for suspected thyroid dysfunction is measurement of serum TSH (most sensitive) and, commonly, free T4. Checking TSH plus free T4 clarifies thyroid status more definitively. FSH/LH or estrogen levels would be evaluated if a primary reproductive or ovarian etiology was strongly suspected, but given these classic hypothyroid features, TSH and free T4 is the best initial choice.

NODIA

354. (c) 2 and 4
In diabetes, erectile dysfunction is often due to neurovascular damage (statement 2)—microvascular disease and neuropathy are key contributors. Hormonal problems, such as hyperproteinemia, can also lead to ED (statement 4). While the prevalence of ED in diabetic males is high, stating it affects 60% is an approximate figure that can vary. Furthermore, ED is more typically aggravated by beta-blockers

or other drugs, not beta-adrenergic agonists (so 3 is incorrect). Thus, statements 2 and 4 are the correct pair.

355. (b) Hyperthyroidism
Hyperproteinemia can arise from hypothyroidism (via elevated TRH), pituitary or stalk lesions (like craniopharyngioma), physical or psychological stress, and chronic renal failure (impaired excretion of prolactin). In contrast, hyperthyroidism does not typically elevate prolactin levels. Indeed, hypothyroidism (not hyperthyroidism) is a well-known endocrine cause of hyperproteinemia.

356. (c) Deafness
Thyrotoxicosis (hyperthyroidism) can lead to atrial fibrillation, thyrotoxic periodic paralysis (particularly in certain ethnic groups), and osteoporosis from increased bone turnover. Deafness is not a classical feature of hyperthyroidism. Though hyperthyroidism can cause a wide variety of systemic effects, sensorineural deafness is not typically recognized as part of thyrotoxic manifestations.

357. (c) IGF-1
Insulin-like Growth Factor-1 (IGF-1) exerts its effects via a tyrosine kinase receptor, structurally similar to the insulin receptor. FSH and TSH both act through G protein–coupled receptors (adenylate cyclase/cAMP pathway), and PTH likewise uses a Gs-cAMP–mediated mechanism. Hence, IGF-1 is the correct example of a hormone utilizing a receptor tyrosine kinase.

358. (c) 1, 3 and 4
MEN 2A classically includes: Medullary carcinoma of the thyroid, Pheochromocytoma, and Primary hyperparathyroidism. Pituitary tumors are associated with MEN 1 (Wermer's syndrome), not MEN 2A. Therefore, the disorders in MEN 2A are 1 (Hyperparathyroidism), 3 (Medullary carcinoma), and 4 (Pheochromocytoma).

359. (b) 1, 2 and 3
Graves' ophthalmopathy can appear asymmetric (sometimes almost unilateral) and is largely diagnosed clinically, aided by imaging if necessary. There is also a known tendency for rebound or worsening if steroids are tapered too quickly. While orbital radiation may be used in moderate to severe cases, describing it as very effective can be somewhat debatable. Thus, statements 1, 2, and 3 are most consistently correct in standard teaching.

360. (d) Hypoparathyroidism
Delirium can result from endocrine imbalances such as hyperthyroidism (thyrotoxic encephalopathy), hypothyroidism (myxedema madness), or hyperparathyroidism (hypercalcemia causing confusion). By contrast, hypoparathyroidism leads primarily to hypocalcemia with tetany, muscle cramps, or seizures; it is not commonly linked to an acute confusional state (delirium). Therefore, hypoparathyroidism is the least likely of these choices to cause delirium.

361. (a) Weight, height and waist circumference
Obesity assessment typically involves body mass index (BMI), calculated from weight and height, along with measures of central adiposity such as waist circumference. Waist circumference is a critical marker of visceral fat and is strongly associated with metabolic risk. Hip, thigh, or chest measurements can be useful in some contexts (like waist–hip ratio), but the most widely accepted key measurements for general obesity surveillance are weight, height, and waist circumference.

362. (c) 27 kg/m^2
Most guidelines recommend pharmacological therapy for patients with BMI $\geq$30 without comorbidity or $\geq$27 if comorbidities (such as diabetes or hypertension) are present. Below this cutoff, lifestyle modifications (diet, exercise, behavior therapy) remain first-line. Thus, the minimum BMI threshold in an obese patient with comorbidities is typically 27 kg/m^2 before considering adjunct weight-loss medication.

363. (d) Renal Osteodystrophy

Click Here to Buy book on Amazon

The primary respiratory rhythm generator resides in the medulla oblongata, specifically in the ventral respiratory group (VRG), which includes the Pre-Bötzinger complex believed to be critical for the basic rhythm of breathing. The dorsal respiratory group (DRG) in the medulla primarily handles inspiratory drive and sensory input. The pons modulates the medullary centers but does not originate the core rhythm. Thus, the ventral medulla oblongata houses the key neurons for initiating and coordinating the fundamental breathing cycle.

379. (c) SAAG 1.1 g/dl ; Ascitic Fluid Protein < 2.5 g/dl
A serum-ascites albumin gradient (SAAG) of greater than 1.1 g/dL typically indicates portal hypertension, most often due to cirrhosis but also possible from congestive heart failure or Budd-Chiari syndrome. In cirrhotic ascites, the ascitic fluid protein is often low (<2.5 g/dL) because of the transudative nature of the fluid. A high SAAG with a low ascitic protein is a classic signature of portal hypertensive ascites. SAAG <1.1 g/dL usually indicates non-portal hypertensive causes such as malignancy or tuberculosis.

380. (d) Bronchial Asthma
Interstitial lung diseases (ILDs) are a broad group of disorders characterized by inflammation and fibrosis of the pulmonary interstitium. Idiopathic pulmonary fibrosis, granulomatosis with polyangiitis (formerly Wegener's granulomatosis), and sarcoidosis all produce characteristic patterns of interstitial involvement. Bronchial asthma, however, is an obstructive airway disease involving bronchial hyperreactivity and reversible airflow limitation rather than diffuse parenchymal infiltration. Asthma does not primarily affect the alveolar or interstitial compartments, so it is excluded as a cause of ILD.

381. (c) 8 to 13 Hz – Alpha rhythm
Alpha waves on an electroencephalogram (EEG) typically range from 8 to 13 Hz and are characteristically seen when a relaxed adult is awake with eyes closed. This pattern, most prominent in the occipital region, diminishes or disappears when the individual opens their eyes or engages in mental activity. Slower frequencies (delta <4 Hz and theta 4–7 Hz) are usually associated with sleep or drowsiness, while higher-frequency beta waves (>14 Hz) reflect active concentration or alertness.

382. (c) Ophthalmic artery
Transient monocular blindness (amaurosis fugax) usually arises from an embolus to the central retinal artery or one of its branches, which stem from the ophthalmic artery. Patients often describe a sudden curtain coming down over the field of vision in one eye. Platelet-fibrin or cholesterol emboli typically originate from atherosclerotic plaques in the carotid arteries or the heart. Because the ophthalmic artery directly supplies the retina via the central retinal artery, any brief occlusion can interrupt blood flow and cause temporary vision loss.

NODIA

383. (a) middle and posterior cerebral artery
The macular region of the visual cortex often has a dual blood supply from both the posterior cerebral artery (PCA), which primarily supplies the occipital lobe, and branches of the middle cerebral artery (MCA). In the event of a PCA infarction, this collateral circulation can help preserve the macular (central) vision area, leading to macular sparing. This is a notable clinical finding: patients with occipital lobe infarcts may lose peripheral vision but retain central vision because the macular cortex is less severely affected.

384. (a) partial ptosis, enophthalmos, constricted pupil, decreased sweating
Horner's syndrome arises from disruption of the sympathetic pathways to the head. Classic clinical findings include a slight drooping of the upper eyelid (partial ptosis), an inwardly sunken appearance of the eyeball (enophthalmos), a constricted pupil (miosis), and reduced sweating (anhidrosis) on the affected side of the face. These signs result from decreased sympathetic stimulation. Notably, exophthalmos and a dilated pupil are incompatible with sympathetic interruption.

the strongest and most direct contributors to its progression. Controlling blood pressure significantly reduces the likelihood of vascular complications such as stroke, coronary artery disease, and peripheral vascular disease.

372. (c) 1, 2, 4 and 6
SA node dysfunction can sometimes be reversible if it results from extrinsic causes such as medication effects (beta blockers or narcotics), hypothyroidism, or raised intracranial pressure. Correcting these underlying factors (e.g., adjusting drug dosages, treating hypothyroidism, reducing intracranial tension) can restore normal sinus function without the need for permanent pacemaker implantation. By contrast, iatrogenic surgical damage or intrinsic sick sinus syndrome often leads to permanent structural or functional impairment of the sinoatrial node, making permanent pacing more likely.

373. (c) Autosomal Dominant
Kartagener syndrome, a subset of primary ciliary dyskinesia, classically presents with the triad of situs inversus (transposition of viscera), chronic sinusitis, and bronchiectasis. It arises from a defect in the dynein arms of cilia, leading to impaired mucociliary clearance. The inheritance pattern is autosomal recessive, not autosomal dominant. Patients typically suffer from recurrent respiratory infections, nasal polyps, and complications related to defective mucus clearance. Identifying the inheritance correctly is crucial in genetic counseling and family studies.

374. (a) FEV1 / FVC < 70% ; FEV1 ↓ ; FVC ↓ ; TLC ↑ DLCO Normal
COPD (especially chronic bronchitis type) typically presents with an obstructive pattern on spirometry: FEV1/FVC < 70%, indicating airflow limitation. FEV1 is decreased, and FVC can be normal or slightly reduced, but the hallmark is a reduced ratio. Total lung capacity (TLC) is often increased due to air trapping and hyperinflation. In many COPD cases, particularly chronic bronchitis, DLCO can remain normal, though it is often reduced in emphysema-dominant COPD. The key diagnostic criterion remains the reduced FEV1/FVC ratio.

375. (b) Ramipril
ACE inhibitors (such as Ramipril, Enalapril, Lisinopril) commonly cause a persistent, nonproductive (dry) cough. This happens because they inhibit the breakdown of bradykinin and substance P in the lungs, leading to accumulation of these peptides and triggering a cough reflex. Though harmless, the cough can be bothersome enough that some patients discontinue therapy or switch to angiotensin receptor blockers (ARBs), which do not have this effect on bradykinin levels. Monitoring cough is important when starting or adjusting ACE inhibitors.

376. (d) All of these
Empyema refers to pus in the pleural space or an infected pleural effusion. Key biochemical findings supporting this diagnosis include very low glucose (<60 mg/dL), high LDH (often >1000 U/L), and an acidic pH (<7.0). These changes reflect active bacterial infection and inflammation in the pleural cavity. Empyema typically arises from pneumonia (parapneumonic effusion), lung abscess, or thoracic surgery/trauma. Effective management includes appropriate antibiotics and, often, drainage of the infected fluid to prevent complications like fibrous organization and lung entrapment.

377. (d) Histidine
Airway secretions are rich in antimicrobial substances such as defensins, secretory IgA, and lysozyme, which help neutralize or destroy pathogens before they can invade the respiratory tract. Defensins are small cationic peptides that disrupt bacterial membranes, IgA prevents pathogen adherence to mucosal surfaces, and lysozyme cleaves bacterial cell walls. Histidine by itself is simply an amino acid, not an established antimicrobial peptide. Histatins, found in saliva, do have antimicrobial properties, but Histidine alone is not listed as an airway antimicrobial agent.

378. (c) Ventral Medulla oblongata

Downloaded from www.pdf.tube

331. (a) Higher dietary calcium increases risk
Moderate dietary calcium actually lowers the risk of kidney stones by binding dietary oxalate in the gut. Extremely high calcium supplementation may be problematic, but normal to moderately higher dietary calcium intake is not typically considered a direct risk factor. High animal protein (increasing uric acid/calcium excretion), low urinary citrate, and low potassium intake all predispose to stone formation. Therefore, the statement that higher dietary calcium increases risk is the one that is NOT correct.

332. (d) Viral encephalitis
Seizures, focal neurologic deficits (aphasia), and altered sensorium—together with fever—suggest encephalitis (parenchymal inflammation), rather than meningitis. In viral (particularly herpes simplex) encephalitis, CSF findings can sometimes be only mildly abnormal or initially near-normal. Bacterial, tubercular meningitis, or multiple sclerosis would usually show more definitive CSF changes. The acute onset of fever, headache, and seizures with unremarkable CSF strongly points to viral encephalitis, often requiring further investigations such as MRI or PCR for confirmation.

333. (a) Carbamazepine
Trigeminal neuralgia involves severe, recurrent facial pain in the distribution of the trigeminal nerve. Carbamazepine is the first-line therapy and can provide substantial relief by stabilizing overactive neuronal sodium channels. Other anticonvulsants (e.g., oxcarbazepine) are alternatives. NSAIDs like aceclofenac, vitamins (thiamine), or corticosteroids (prednisolone) are not standard first-line therapies for classic trigeminal neuralgia.

334. (b) Non dominant parietal lobe
Constructional ability—e.g., copying designs or arranging objects in space—is largely mediated by the non-dominant (usually right) parietal lobe, which integrates visual-spatial information. Lesions here often produce constructional apraxia, where patients struggle to assemble or draw objects correctly. The temporal lobe focuses on auditory perception/memory (dominant side often for language), whereas frontal lobes guide executive functions and motor planning, not the primary integration of spatial information needed for constructional tasks.

335. (d) Parinaud syndrome
Parinaud's syndrome (dorsal midbrain syndrome) typically manifests with an upward gaze palsy and convergence–retraction nystagmus on attempted upgaze. Causes include pineal region tumors, stroke, multiple sclerosis, or hydrocephalus affecting the superior colliculi/pretectal area. Weber, Millard-Gubler, and Claude syndromes are brainstem stroke syndromes that present with other cranial nerve and long tract findings but do not classically cause vertical gaze palsy with convergence–retraction nystagmus.

336. (d) Right 3rd nerve palsy
A down and out deviation of the eye with a dilated pupil is classic for an oculomotor (third cranial nerve) palsy. CN III innervates most extraocular muscles (except lateral rectus and superior oblique) and also carries parasympathetic fibers to the pupil. When palsy occurs, the eye assumes the unopposed actions of lateral rectus (VI) and superior oblique (IV), pointing down and out. Pupillary dilation implies involvement of parasympathetic fibers.

337. (d) Extensor plantar response
Cauda Equina syndrome results from compression of the lumbosacral nerve roots below the level of the spinal cord termination. This causes lower motor neuron findings such as flaccid paralysis, decreased or absent deep tendon reflexes (areflexia), saddle anesthesia, and bladder/bowel dysfunction. An extensor plantar (Babinski) response is an upper motor neuron sign typically seen with spinal cord (rather than cauda equina) lesions. Hence, it is the one that does not fit Cauda Equina syndrome.

338. (a) Parkinson's disease
The hallmark motor features of Parkinson's disease include resting tremor, bradykinesia,

NODIA

385. (c) Spinal cord ends at lower level of 5th lumbar vertebrae

In an adult, the spinal cord typically terminates at around the level of the L1–L2 vertebrae (conus medullaris). The dorsal columns (fasciculus gracilis and fasciculus cuneatus) carry fine touch, vibration, and proprioception and synapse in their respective nuclei in the medulla. The lateral spinothalamic tract indeed transmits pain and temperature. The dorsal spinocerebellar tract carries proprioceptive information ipsilaterally to the cerebellum. Therefore, stating that the cord ends at the L5 vertebra is incorrect.

386. (b) Myotonia dystrophica

Duchenne's and Becker muscular dystrophies are well-known for predominantly proximal muscle weakness (e.g., pelvic girdle). Facio-scapulo-humeral dystrophy also involves the shoulder girdle muscles (a proximal pattern in the upper limbs), though it is distinct in also affecting facial muscles. Myotonia dystrophica (Steinert's disease) more characteristically presents with myotonia (delayed relaxation), and its muscle weakness often shows a distal predominance (hands/feet) and facial involvement rather than classic proximal girdle weakness.

387. (a) Hodgkin's disease

Pel-Ebstein fever refers to a pattern of fever that typically rises for several days, then subsides, and may remain normal for days before spiking again. This cyclical fever is classically associated with Hodgkin's lymphoma. Although not present in all Hodgkin's patients, when seen, it is a useful clinical clue. Malaria, kala-azar, and typhoid have their own characteristic fever patterns but do not exhibit the specific cyclical pattern called Pel-Ebstein fever.

388. (d) Auer rods suggest acute lymphocytic leukaemia

Auer rods are rod-shaped intracytoplasmic inclusions seen primarily in myeloblasts (acute myeloid leukemia, especially the M3 variant known as acute promyelocytic leukemia). They are not features of acute lymphoblastic (lymphocytic) leukemia (ALL). Promyelocytic leukemia (M3 AML) is well-known for its association with disseminated intravascular coagulation (DIC). Gum hypertrophy occurs especially in monocytic variants of AML. Translocations (e.g., t(15;17) in promyelocytic leukemia) are commonly encountered in acute myeloid leukemias.

389. (a) Menorrhagia

Polycystic ovarian syndrome (PCOS) often presents with oligomenorrhea or amenorrhea (reduced or absent menstrual cycles) due to anovulation, not typically menorrhagia (heavy menstrual bleeding). Common clinical features include hyperandrogenism (acne, hirsutism), insulin resistance or glucose intolerance, obesity in many cases, and infertility resulting from irregular ovulation. Menorrhagia is not the typical bleeding pattern in PCOS, so it is the best choice as the EXCEPT in this list.

390. (b) Narrow carrying angle of Elbow

Turner syndrome (45,X) classically presents with short stature, webbed neck, widely spaced nipples, and coarctation of the aorta. Another well-known feature is cubitus valgus (increased carrying angle at the elbow), not a narrow one. Patients can also show streak ovaries and primary amenorrhea. The narrow carrying angle is therefore the incorrect statement. Recognizing cubitus valgus helps distinguish Turner syndrome from other causes of short stature.

391. (b) Graves disease

Pretibial myxedema (also called Graves' dermopathy) is characterized by localized lesions on the skin resulting from mucopolysaccharide deposition, typically over the anterior aspects of the lower legs. It is almost exclusively associated with Graves' disease, an autoimmune hyperthyroid condition. While severe hypothyroidism (myxedema) can cause generalized non-pitting edema, pretibial myxedema specifically points to Graves' disease. Cushing's disease (hypercortisolism) and Conn syndrome (hyperaldosteronism) do not produce this characteristic localized skin finding.

392. (b) A-2 B-3 C-1 D-4

Click Here to Buy book on Amazon

FGF23 is secreted by osteocytes to reduce serum phosphate (by decreasing renal phosphate reabsorption and vitamin D activation). In chronic kidney disease, phosphate tends to accumulate, stimulating FGF23 secretion. Persistently high FGF23 is a hallmark of renal osteodystrophy, part of CKD-mineral and bone disorder. In simple osteomalacia, osteoporosis, or Paget's disease, FGF23 is not typically elevated to the same extent.

364. (d) Calcium pyrophosphate dehydrate (CPPD)
Pseudogout is caused by the deposition of calcium pyrophosphate dihydrate (CPPD) crystals in joints. In contrast, gout results from monosodium urate crystals. Calcium phosphate or cholesterol crystals are not the hallmark of pseudogout.

365. (c) 1, 3 and 4
Poor prognostic factors in diffuse cutaneous systemic sclerosis include older age at onset, significant renal involvement (e.g. proteinuria, scleroderma renal crisis), and diffuse skin involvement (as opposed to limited). A high DLCO (gas transfer factor) actually suggests better lung function. A low DLCO would be a poor prognostic indicator. Hence, 1, 3, and 4 correlate with worse outcomes.

366. (d) 1, 2 and 3
Pegloticase is a PEGylated recombinant uricase enzyme (thus an enzyme conjugate) indicated for chronic refractory gout to help reduce uric acid levels. It can cause infusion reactions and patients may develop antibodies to the therapeutic enzyme, limiting its long-term efficacy. All three statements are correct.

367. (c) Presbycusis
Presbycusis, the age-related degeneration of the cochlea or associated structures, is the single most common cause of sensorineural hearing loss in adults. Otosclerosis often causes conductive or mixed hearing loss, Meniere's disease is less common overall, and meningitis can lead to hearing loss but is not the most frequent cause in the general adult population.

368. (c) Inhibition by visual fixation
In peripheral vestibular causes of vertigo (e.g., benign positional vertigo, labyrinthitis), nystagmus typically diminishes or is inhibited when the patient fixes vision on a target. In central lesions (e.g., brainstem or cerebellar pathology), nystagmus often persists or even worsens despite visual fixation, and there may be other neurological findings like poor saccades, diplopia, or dysarthria. Therefore, inhibition by visual fixation points to a peripheral (not central) origin.

369. (c) Severe Aortic Regurgitation
An Austin Flint murmur is a low-pitched, mid-diastolic rumble best heard at the cardiac apex in severe aortic regurgitation. The regurgitant jet from the aorta strikes the anterior leaflet of the mitral valve, causing it to vibrate and produce a sound that can mimic mitral stenosis but occurs in the absence of an actual mitral valve obstruction. The murmur's presence is closely tied to the intensity of the regurgitant flow and disappears if that flow is significantly reduced.

NODIA

370. (a) 1, 2 and 3
Acute myocardial infarction, hyperkalemia, and pericarditis are all important considerations in a patient presenting with chest pain and ST-segment elevation. While MI and pericarditis are well-known causes of ST elevation, severe hyperkalemia can also produce changes that can mimic or appear as ST shifts. Oesophagi tis may cause chest pain but does not typically cause ST elevation. Hypocalcemia mainly prolongs the QT interval, and pneumothorax can alter ECG voltages or axes rather than causing true ST elevation.

371. (b) Hypertension
Hypertension is a major, modifiable risk factor for atherosclerosis because chronically elevated blood pressure damages the arterial endothelium and promotes plaque formation. Over time, the increased shear stress leads to endothelial dysfunction, facilitating lipid accumulation and inflammatory changes. While age, gender, and lifestyle factors also influence atherosclerosis development, hypertension remains one of

presents with jugular venous distension and peripheral edema. Mitral stenosis/endocarditis and constrictive pericarditis have different hemodynamic profiles, usually without acute diffuse crepitations. In a diabetic patient, ischemic heart disease leading to left ventricular dysfunction is a common precipitant of acute heart failure symptoms.

400. (c) Atrial emptying
In jugular venous pulse (JVP) tracings, the Y descent signifies the rapid emptying of the right atrium into the right ventricle once the tricuspid valve opens in early diastole. Atrial relaxation is the x descent, while atrial systole creates the a wave. The Y descent is most prominently seen when there is an unobstructed flow from the right atrium to the right ventricle (e.g., in constrictive pericarditis it is accentuated). It does not signify apical displacement of the tricuspid valve.

401. (c) Venous pulse has a single peak in each cardiac cycle
A normal jugular venous pulse often shows multiple deflections (the a, c, and v waves) rather than a single peak. Venous pulsations also vary with respiration, increase with abdominal compression (the hepatojugular reflux), and are generally not easily palpable, which helps differentiate them from arterial pulses. Claiming that the venous pulse has only one peak per cardiac cycle is incorrect, making option (c) the NOT correct statement.

402. (b) Postradiation pneumonitis
Eosinophilic lung infiltrates are seen in conditions like bronchial asthma, eosinophilic granulomatosis with polyangiitis (Churg-Strauss), and parasitic infections or allergic bronchopulmonary aspergillosis, which can complicate cystic fibrosis. Postradiation pneumonitis, however, usually reflects an inflammatory reaction with predominant damage to alveolar cells and interstitium, rather than a marked eosinophilic infiltration. Therefore, among the listed choices, postradiation pneumonitis is the one that does NOT typically present with pulmonary infiltrates featuring eosinophils.

403. (c) Pulmonary fibrosis
Pulmonary fibrosis is a restrictive lung disease characterized by thickening and scarring of the alveolar walls, leading to decreased compliance and reduced lung volumes, including a lowered total lung capacity (TLC). Asthma, chronic bronchitis, and emphysema are primarily obstructive lung diseases where TLC is usually normal or increased (especially in emphysema, where hyperinflation raises TLC). Thus, among the options, only pulmonary fibrosis consistently reduces the TLC.

404. (b) Increase in FEV1 $\geq$ 12 % following administration of inhaled bronchodilators
A classic diagnostic benchmark for reversible airway obstruction (as seen in asthma) is an FEV1 increase of at least 12% (and at least 200 mL in absolute terms) after administering a short-acting bronchodilator. This improvement demonstrates the reversibility component of obstructive airway disease. Exercise-induced bronchoconstrictor and diurnal peak flow variability are supportive tests, but the $\geq$12% rise in FEV1 post-bronchodilator remains the key spirometric criterion commonly used to confirm bronchial hyperreactivity in clinical practice.

405. (c) Upper gastrointestinal bleeding
The Blatchford score (and its modified versions) is specifically designed to assess the severity of an upper GI bleed and determine the need for urgent intervention, such as endoscopic therapy or blood transfusion. The score considers parameters like hemoglobin level, blood urea, systolic blood pressure, pulse, presence of melena, hepatic disease, and heart failure. By stratifying patients based on risk, it helps clinicians prioritize endoscopic evaluation and treatment, reducing mortality and complications.

NODIA

406. (c) 1 and 2
Proton pump inhibitors (PPIs) reduce gastric acid production, which can shift normal gut flora and predispose to infections. Long-term PPI therapy is associated with an increased risk of Clostridioides difficile colitis and may facilitate

oral bioavailability. This is why it is routinely administered sublingually, transdermally, or via other non-oral routes to bypass hepatic clearance. The high presystemic metabolism (first-pass effect) means very little active drug reaches systemic circulation if given as a standard oral tablet. Hence, sublingual nitroglycerin is the classic acute treatment for angina because it quickly enters the bloodstream, avoiding first-pass inactivation.

449. (c) Thiamine
Confabulation (fabrication of memories without conscious intent to deceive) is a hallmark of Korsakoff's psychosis, which often follows Wernicke's encephalopathy in the setting of thiamine (vitamin B1) deficiency, most frequently seen in alcohol use disorder. Wernicke–Korsakoff syndrome features acute confusion, ophthalmoplegia, ataxia (Wernicke's), and later memory impairment with confabulation (Korsakoff's). Niacin deficiency causes pellagra (dermatitis, diarrhea, dementia), and folic acid or zinc deficiency are not characteristically linked to confabulation.

450. (b) Decrease
Some first-line antitubercular drugs, notably rifampicin, induce hepatic cytochrome P450 enzymes, accelerating the metabolism of many medications, including warfarin. As a result, warfarin levels can drop, reducing its anticoagulant effect. The patient then becomes at higher risk of thrombotic events unless warfarin dosing is adjusted upward. Regular monitoring of prothrombin time/INR is essential in patients who begin enzyme-inducing therapies while on warfarin.

451. (c) Retrograde amnesia
Wernicke's syndrome, caused by thiamine (vitamin B1) deficiency, is classically described by the triad of confusion/encephalopathy, ataxia, and ophthalmoplegia (or nystagmus). Korsakoff's psychosis, which may follow Wernicke's, features severe anterograde amnesia, possible retrograde amnesia, and confabulation. However, the Wernicke's component itself does not center on retrograde amnesia as a key sign. Therefore, among these choices, retrograde amnesia is not part of the classic Wernicke's triad.

452. (a) Andersen disease
Andersen disease (GSD IV) is a glycogen storage disease caused by a defect in the branching enzyme, leading to abnormal glycogen structure (amylopectinosis). Gaucher disease is a sphingolipidosis due to glucocerebrosidase deficiency; Krabbe disease is a leukodystrophy due to galactocerebrosidase deficiency; Sandhoff disease is another sphingolipidosis affecting β-hexosaminidase. Only Andersen disease among the listed options is a classical glycogen storage disorder.

453. (b) Tricuspid valve
Carcinoid syndrome often leads to fibrous deposits of serotonin and related substances predominantly on the right side of the heart, especially affecting the tricuspid valve. This is because the metabolites released by carcinoid tumors are largely inactivated by the lungs and therefore typically do not affect the left side of the heart unless a right-to-left shunt is present. Tricuspid regurgitation and, less commonly, pulmonary valve disease are the hallmarks of carcinoid heart disease.

454. (a) Aspirin, Sublingual nitroglycerin, Clopidogrel, Primary PCI
For an acute myocardial infarction occurring just one week after prior streptokinase treatment, re-thrombolysis with the same agent is generally avoided due to high risk of allergic reactions and reduced efficacy. Current guidelines emphasize urgent re perfusion with primary PCI if available promptly, as it provides the most definitive and effective re perfusion strategy in this scenario. Therefore, immediate anti platelet therapy (aspirin, clopidogrel), sublingual nitroglycerin, and emergent primary PCI is considered the best approach.

455. (b) Ventricular Tachycardia
A fusion beat occurs when a supraventricular impulse and a ventricular ectopic impulse activate the ventricles simultaneously, producing a hybrid QRS complex. This is most often seen in Ventricular Tachycardia, where occasional

Downloaded from www.pdf.tube

well known, particularly with IV formulations. Malignancy risk, including melanoma and lymphomas (T-cell or B-cell), is slightly increased with long-term immunosuppression. Consequently, patients receiving these therapies require careful monitoring for early detection of skin lesions or lymphoproliferative disorders.

414. (c) 1 and 3 only
Gastrinomas (as in Zollinger–Ellison syndrome) are suspected when peptic ulcers occur in unusual locations (e.g., distal duodenum or jejunum) and/or are especially severe, multiple, or recurrent, frequently leading to complications such as perforation or bleeding. H. pylori–related ulcers are common in typical anatomic sites (e.g., duodenum, proximal stomach), so the mere presence of H. pylori is not usually an indication to suspect a gastrinoma.

415. (c) 1, 3 and 4
Coeliac disease is strongly associated with dermatitis herpetiformis, an intensely pruritic rash linked to IgA deposition in the skin. It also correlates more typically with type 1 diabetes mellitus (autoimmune), not type 2. Turner syndrome has an increased incidence of coeliac disease, and selective IgA deficiency can coexist with coeliac disease. Awareness of these associations aids early investigation in at-risk groups.

416. (a) 1, 2 and 3
Classically, Whipple disease (caused by Tropheryma whipplei) presents with chronic diarrhea, steatorrhea, weight loss, and migratory arthralgias/arthropathy. Although CNS or ocular involvement can occur, it is less universal than the GI and joint manifestations. The classic triad in many patients includes malabsorptive symptoms (steatorrhea), weight loss, and migratory arthralgias. Ocular and CNS findings, while possible, are not always considered characteristic at initial presentation—hence (a) is the best fit among the given options.

417. (d) 1, 2 and 3
Protein losing enteropathy leads to hypoalbuminemia, which frequently causes peripheral edema. Depending on the underlying pathology (e.g., intestinal lymphangiectasia or severe mucosal disease), patients can present with diarrhea and steatorrhea if malabsorption also coexists. Laboratory findings typically show a marked reduction in serum albumin; serum globulins may be relatively preserved or variably affected, but often the notable feature is disproportionately low albumin compared to globulin. All three listed features can be seen in protein losing enteropathy.

418. (d) 1 only
About 5–10 % of patients with IBD (especially ulcerative colitis) may develop a spondyloarthropathy resembling ankylosing spondylitis. However, the axial (spinal/sacroiliac) involvement typically does not fluctuate strictly with bowel disease activity. Peripheral arthritis in IBD can mirror bowel flares, but true AS-like disease often follows a more independent course and does not reliably remit with colectomy or glucocorticoids aimed at the colitis. Thus, only statement 1 is correct for classic AS in the context of IBD.

NODIA

419. (d) 1, 2 and 3
Certain diagnostic or intervention al radiological procedures can result in:

1. Contrast-induced nephropathy (especially in patients with diabetes or pre-existing renal impairment)
2. Atheroembolism (cholesterol embolization) if atherosclerotic plaques are dislodged during catheterization
3. Nephrogenic systemic fibrosis (NSF), formerly called nephrogenic fibrosing dermopathy, triggered by gadolinium-based contrast in individuals with renal failure, causing sclerosing changes in skin and other tissues.

Hence, all three listed entities are recognized renal-related complications.

420. (c) Atheroembolism
After angiographic procedures (especially in older, atherosclerotic individuals), dislodged

cholesterol crystals can migrate to small renal arterioles, causing cholesterol atheroembolism (or atheroembolic renal disease). This can present acutely or subacutely with deteriorating renal function, hematuria, proteinuria, and sometimes livedo reticularis or other embolic phenomena. Renal artery stenosis or infarction typically presents differently, and homiletic uraemic syndrome has a characteristic triad of microangiopathic hemolysis, thrombocytopenia, and acute kidney injury, often in different clinical settings.

421. (c) 2, 3 and 4
Major contraindications to percutaneous renal biopsy include uncontrolled hypertension (due to bleeding risk), a solitary kidney (since losing or damaging the only functioning kidney is a severe complication), and coagulopathy (disordered coagulation greatly raises the risk of hemorrhage). Merely having a normal size kidney is not a contraindication. In fact, having very small kidneys can be a relative contraindication because it reduces diagnostic yield and increases the chance of complications, but normal-sized kidneys pose no such specific barrier.

422. (a) Anti-acetylcholine receptor antibody
The presence of anti-acetylcholine receptor antibodies is highly specific for Myasthenia gravis (MG). While repetitive nerve stimulation and the edrophonium (Tensilon) test are important, they are less specific and can be affected by examiner technique or other neuromuscular issues. In many patients with MG, especially those with generalized disease, a positive anti-ACh receptor antibody test nearly clinches the diagnosis. About 10–15% of MG patients may have anti-MuSK (muscle-specific kinase) antibodies instead, but anti-AChR positivity remains the most specific overall.

423. (b) Cerebrovascular disease
In the elderly, cerebrovascular disease (e.g., ischemic stroke, hemorrhage) is the most frequent cause of new-onset seizures or late-onset epilepsy. Infarcts can lead to areas of gliosis and irritative foci that predispose to seizure activity. While tumors, trauma, and degenerative conditions can also be responsible for seizures in older adults, vascular pathology remains the most prevalent factor. Proper evaluation often includes imaging to identify any acute or chronic ischemic or hemorrhagic lesions that might explain the seizures.

424. (d) Claude syndrome
Claude syndrome is a midbrain stroke syndrome typically involving the red nucleus or adjacent structures, producing an ipsilateral oculomotor (CN III) palsy and contralateral cerebellar ataxia (due to disruption of the cerebellar outflow pathways in the midbrain). In contrast, Weber syndrome causes ipsilateral CN III palsy with contralateral hemiparesis, Wallenberg syndrome (lateral medullary) primarily affects CN V, VIII, IX, X pathways, and Parinaud syndrome involves vertical gaze palsy from dorsal midbrain involvement but not contralateral cerebellar signs.

425. (c) Optic tract
A lesion in the optic tract typically causes an incongruous contralateral homonymous hemianopia because fibers from both eyes (representing the contralateral visual field) are interrupted, yet they have not fully coalesced into the more congruent visual representation seen farther along in the visual pathway. A lesion in the optic radiation or occipital cortex tends to produce a more congruous field defect. Lesions of the optic nerve produce unilateral vision loss, while a chiasmal lesion classically produces bitemporal hemianopia.

426. (b) Post splenectomy
Common causes of macrocytosis (elevated MCV) include liver disease (often from alcohol-related injury and altered RBC membranes), hypothyroidism (mild macrocytosis can occur), and myelodysplastic syndrome (defective RBC maturation). While RBC inclusions (e.g., Howell-Jolly bodies) may appear after splenectomy, a pronounced or consistent macrocytosis is not typically a classic feature of post-splenectomy by itself. Hence, among these choices, post-splenectomy is the exception. However, mild macrocytosis can occasionally appear in

Click Here to Buy book on Amazon

splenectomized patients, but it is generally less recognized than in the other listed conditions.

427. (d) Haemolytic uraemic syndrome
Microcytic, hypochromic anemias are typically due to reduced hemoglobin synthesis (iron deficiency, thalassemia, anemia of chronic disease, sideroblastic anemia). Thalassemias involve defective globin chains, anemia of chronic disease can limit iron availability, and sideroblastic anemia features abnormal heme synthesis. By contrast, hemolytic uraemic syndrome (HUS) causes a normocytic hemolytic anemia with schistocytes due to microangiopathic destruction, not a microcytic process.

428. (a) Glucocorticoids
Glucocorticoids typically cause neutrophilia by demargination of neutrophils from the vessel walls, not neutropenia. In contrast, propylthiouracil (PTU), dapsone, and certain ACE inhibitors (like enalapril, though less commonly) can cause agranulocytosis or neutropenia through immune-mediated or toxic mechanisms. Physicians monitor white cell counts in patients starting PTU or dapsone to detect early signs of agranulocytosis.

429. (d) Herpes simplex
In the initial post-transplant period (first 4 weeks), Herpes simplex virus (HSV) reactivation is a known early infectious complication, especially in seropositive individuals who become immunosuppressed. Cytomegalovirus, Pneumocystis jirovecii, and Varicella zoster typically emerge later (beyond 1 month) when cell-mediated immunity is more profoundly affected or as prophylactic measures wane. Recognizing the typical time line of post-transplant infections assists in targeted prophylaxis and early empirical treatment if infections arise.

430. (d) 1, 2 and 3
Vitamin B12 deficiency affects both the central and peripheral nervous systems, leading to a spectrum of neurological and neuropsychiatric issues. Poor memory or cognitive impairment, optic atrophy (progressive vision loss), and personality changes (or even depression, psychosis) can all occur. Subacute combined degeneration involves the dorsal columns (loss of vibration and proprioception) and lateral corticospinal tracts. Early recognition and B12 repletion can reverse or halt many of these neurologic deficits if treated promptly.

431. (b) Malaria
Cold agglutinin–mediated hemolysis commonly involves Mycoplasma pneumoniae infection (classic association), Infectious mononucleosis (Epstein-Barr virus), and occasionally syphilis. The immune response generates IgM antibodies that bind RBCs at low temperatures, leading to complement-mediated hemolysis. Malaria causes hemolysis through direct parasitic destruction of red cells and immunologic mechanisms, but it is not typically associated with cold agglutinins.

432. (d) 24 hours urinary fractionated metanephrines and catecholamines
When diagnosing pheochromocytoma, the most sensitive biochemical tests measure fractionated metanephrines (either in plasma or 24-hour urine). Elevated metanephrines reflect continuous catecholamine turnover by the tumor. Imaging studies like MIBG (metaiodobenzylguanidine) scintigraphy are crucial for tumor localization but are less sensitive for the initial diagnosis. Somatostatin receptor imaging or PET scans (e.g., 18F-FDOPA) can also help localize difficult cases, but the high-sensitivity screening hinges on measuring fractionated metanephrines and catecholamines.

433. (c) Hypoparathyroidism
Polyuria arises from either osmotic diuresis or impaired water reabsorption in the kidneys. Diabetes mellitus causes osmotic diuresis (glucosuria). Diabetes insipidus (central or nephrogenic) impairs the kidney's ability to concentrate urine. Conn syndrome (primary hyperaldosteronism) can lead to some degree of polyuria (and hypokalemia) through changes in renal handling of electrolytes. Hypoparathyroidism, however, is not typically

NODIA

associated with polyuria. Low calcium does not create a direct osmotic or anti-ADH effect that produces marked polyuria.

434. (c) Subclinical hypothyroidism
Subclinical hypothyroidism is defined by a normal circulating T4 (and usually T3) but an elevated TSH (often in the 5–10 mU/L range). It suggests mild or early thyroid failure where the gland can still maintain normal hormone levels at the expense of increased pituitary TSH drive. In primary hypothyroidism, the T4 would typically be low, whereas in secondary (pituitary) hypothyroidism, TSH would not be elevated. Non-thyroidal illness usually shows low T3 or altered T4, not an isolated TSH rise.

435. (a) Oral Cabergoline
Dopamine agonists are first-line therapy for prolactinomas. Cabergoline is often preferred over bromocriptine because it has a longer half-life, better patient tolerance, and higher efficacy in reducing prolactin levels and tumor size. Bromocriptine is an alternative, especially during pregnancy or if patients cannot tolerate cabergoline. Surgery is reserved for those not responding to or intolerant of medical therapy, and radiotherapy is considered only in refractory cases.

436. (d) Liver biopsy with quantitative copper assays
Although Kayser–Fleischer rings, low serum ceruloplasmin, and elevated urinary copper are highly suggestive of Wilson's disease, the definitive gold standard remains liver biopsy with direct measurement of hepatic copper content. This test quantifies copper deposition in liver tissue. Other tests are also performed as part of the clinical work-up: slit-lamp exam for KF rings, 24-hour urinary copper, and ceruloplasmin levels. In ambiguous cases, the liver copper assay provides a definitive assessment.

437. (a) Hypophosphatemia
Re feeding syndrome occurs when a malnourished patient is refed (especially with carbohydrates). Insulin secretion increases and drives phosphate, potassium, and magnesium into cells for use in metabolic pathways, leading to hypophosphatemia (the hallmark feature), as well as potential hypokalemia and hypomagnesemia. This can precipitate respiratory failure, arrhythmias, or neuromuscular dysfunction. Recognizing and carefully correcting electrolyte deficits is essential in at-risk individuals, such as chronic alcoholics or those with prolonged starvation.

438. (d) 1, 2 and 3
Early-onset osteoarthritis often appears prior to age 55 and is commonly linked to a specific cause such as trauma or repetitive mechanical stress. This leads to secondary OA, which usually affects a single joint or a limited number of joints rather than the more generalized presentation typical of older adults with primary OA. Thus, all three listed points—onset younger than 55, a history of trauma or injury, and involvement often limited to a single joint—are characteristic features.

439. (c) Reactive arthritis
Reactive arthritis is an aseptic inflammatory condition triggered by an extra-articular infection (often genitourinary or gastrointestinal), leading to arthritis after the inciting organism is cleared. This patient's sterile joint culture, history of recent UTI, inflammatory synovial fluid with multinucleated macrophages, plus low back involvement are consistent with a spondyloarthropathy (reactive arthritis). Septic arthritis usually has a positive culture or direct organism detection. Crystal arthritis has characteristic crystals on microscopy, and Still's disease has its own distinct systemic features and rash.

440. (a) 1 and 2 only
In older adults, gout is often precipitated by reduced renal function, chronic kidney disease, or diuretic use, and these patients may have more atypical joint involvement, including upper limb joints or polyarticular patterns. Statement 3 is not always true—elderly-onset gout can present more indolently, without the classic acute podagra. Thus, while (1) and (2) accurately reflect common features of gout in the elderly, (3) is not consistently seen.

Downloaded from www.pdf.tube

441. (c) Rheumatoid arthritis
Bilateral, symmetrical involvement of the MCP, PIP, and wrist joints for more than six weeks is highly suggestive of rheumatoid arthritis (RA). By contrast, osteoarthritis typically affects the distal interphalangeal joints (DIPs) and can be asymmetrical or less inflammatory. Ankylosing spondylitis commonly presents with spinal and sacroiliac joint involvement. While lupus can have polyarthritis, RA's classic hallmark is persistent inflammatory arthritis in the MCP and PIP joints bilaterally.

442. (d) 1, 2 and 4
RA can lead to peripheral entrapment neuropathies (e.g., carpal tunnel syndrome), atlantoaxial subluxation (which can endanger the spinal cord), and increased risk of lymphoma (particularly with chronic inflammation). However, RA is classically associated with secondary (AA) amyloidosis, not primary (AL) amyloidosis. Hence, statement 3 is inaccurate when it says primary amyloidosis. Therefore, 1, 2, and 4 are known complications of RA.

443. (c) Secukinumab
Secukinumab is a monoclonal antibody targeting IL-17A, used in the management of psoriasis, psoriatic arthritis, and ankylosing spondylitis. Infliximab and Etanercept target TNF-α, while Ustekinumab targets IL-12/23. IL-17A inhibition helps block a key pro-inflammatory cytokine pathway implicated in certain autoimmune and auto inflammatory conditions.

444. (b) Lithium
Lithium remains the cornerstone (mainstay) of treatment for bipolar disorder. It is effective both in acute mood episodes (particularly mania) and in long-term prophylaxis against manic and depressive relapses. Although anticonvulsants (e.g., valproate, carbamazepine) and certain atypical antipsychotics (e.g., risperidone, olanzapine) are also used, lithium's mood-stabilizing efficacy and well-studied track record make it pivotal for many patients. Regular monitoring of lithium levels, renal function, and thyroid status is essential to minimize toxicity while maintaining therapeutic benefits.

445. (d) Inferior frontal gyrus
Markedly reduced speech output with intact comprehension is characteristic of Broca's aphasia, which arises from a lesion in the inferior frontal gyrus (usually the dominant hemisphere, often the left). Patients typically have halting, effortful speech but understand spoken language relatively well. This contrasts with Wernicke's aphasia (posterior temporal lobe), which produces fluent but nonsensical speech and poor comprehension. Involvement of the cerebellum or midbrain does not typically produce a classic aphasia syndrome of this nature.

446. (b) Lower motor neuron disease
Hallmarks of lower motor neuron (LMN) disease include muscle atrophy, reduced or absent deep tendon reflexes, and the absence of pathologic reflexes such as Babinski sign (which is an upper motor neuron sign). In LMN lesions, damage to the anterior horn cells, nerve roots, or peripheral nerves leads to flaccid weakness and significant muscle wasting. Upper motor neuron lesions generally exhibit increased tone, hyperreflexia, and Babinski positivity. Cerebellar disorders cause ataxia, while psychogenic weakness would not typically show significant atrophy or reflex changes.

NODIA

447. (b) Allodynia
Allodynia refers to pain provoked by stimuli that do not ordinarily cause pain, such as a light touch on the skin. This occurs due to heightened sensitivity or mass-producing of sensory signals in peripheral or central pathways. Hyperalgesia is an exaggerated response to a stimulus that is normally painful, analgesia is absence of pain perception, and sensitization is the more general process that can increase pain responsiveness. Among these choices, allodynia specifically describes innocuous stimuli being perceived as painful.

448. (c) High pre systemic metabolism
Nitroglycerin undergoes extensive first-pass metabolism in the liver, greatly reducing its

bacterial overgrowth that can aspirate into the lungs, increasing the incidence of community-acquired pneumonia. However, they are not typically implicated as a direct risk factor for urinary tract infections. Hence, the correct combination for PPI-related risks in the elderly is (1) pneumonia and (2) C. difficile disease.

407. (c) Odynophagia
Infectious esophagitis (most commonly caused by Candida, herpes simplex virus, or cytomegalovirus in immunocompromised patients) typically presents with painful swallowing, or odynophagia, which is more characteristic than simple dysphagia. While dysphagia, chest pain, and even bleeding can occur, odynophagia—sharp or burning pain when swallowing—is the hallmark. Identifying odynophagia often prompts endoscopic evaluation to visualize any ulcerations or plaque-like lesions, which helps differentiate among the causative organisms.

408. (d)Serumalbumin,Serumbilirubin,prothrombin time, ascites, hepatic encephalopathy
The Child-Pugh (or Child-Turcotte-Pugh) score is used to assess the prognosis of cirrhosis. It incorporates five criteria: serum bilirubin, serum albumin, prothrombin time (or INR), ascites, and hepatic encephalopathy. Each parameter is assigned points based on severity. The modified version follows the same essential measures, reflecting both synthetic liver function (albumin, coagulation) and clinical severity (ascites, encephalopathy). Options listing fewer factors omit at least one of the needed parameters.

409. (d) Weight loss
Irritable Bowel Syndrome (IBS) is a functional gastrointestinal disorder characterized by chronic, recurrent abdominal pain or discomfort associated with altered bowel habits (diarrhea, constipation, or both), often influenced by stress. It typically does not cause significant weight loss because there is no destructive process affecting nutrient absorption. The presence of unexplained, clinically relevant weight loss should prompt investigation for organic diseases such as inflammatory bowel disease, malabsorption syndromes, or malignancies rather than IBS.

410. (b) Cytomegalovirus esophagitis
In immuno compromised patients (e.g., HIV with low CD4 counts), CMV esophagitis typically shows large, linear or serpiginous ulcers with relatively normal adjacent mucosa on endoscopy. Candida esophagitis usually presents with white plaques, and herpes esophagitis tends to cause smaller, well-demarcated punched-out ulcers. GERD can cause erosions or ulcerations but is less likely to produce classic serpiginous ulcers in an otherwise normal mucosa in this context.

411. (d) Organ transplant recipients
Cytomegalovirus (CMV) infection can become clinically significant in states of immunosuppression, such as HIV/AIDS or in organ transplant recipients receiving immunosuppressive regimens to prevent graft rejection. In these individuals, CMV can infect the esophagus, causing large ulcerations. While diabetics or those with chronic liver disease are somewhat immuno compromised, they are not the classical high-risk group for CMV esophagitis. Organ transplant recipients are at notably higher risk because of the targeted immunosuppression therapy.

412. (b) Intestinal lymphoma
In a patient with coeliac disease who initially improves on a gluten-free diet but later deteriorates despite continued adherence, the major concern is development of enteropathy-associated T-cell lymphoma of the small intestine. While refractory coeliac disease is possible, the most feared and important complication is malignant transformation. These patients often have persistent or worsening malabsorption symptoms and may demonstrate ulcerative jejunoileitis on imaging or endoscopy. Prompt evaluation is crucial to rule out lymphoma.

413. (d) 1, 2 and 3
Anti-TNF agents (e.g., infliximab, adalimumab) can cause several significant adverse effects. Infusion reactions (ranging from mild hypersensitivity to severe anaphylaxis) are

Click Here to Buy book on Amazon

normal supraventricular depolarizations capture or partially merge with the ongoing abnormal ventricular rhythm. Detecting fusion (and capture) beats helps distinguish Ventricular Tachycardia from Supraventricular Tachycardia with aberrancy.

456. (a) Primary percutaneous coronary intervention
Primary PCI is the gold standard for ST-elevation myocardial infarction provided it can be performed in a timely manner by an experienced team. Although the patient has had symptoms for 24 hours, PCI may still confer benefits, especially if ongoing ischemia persists. Thrombolysis typically has limited benefit after 12 hours and higher risk of complications. Therefore, primary PCI remains the preferred choice to restore coronary blood flow, limit myocardial damage, and improve long-term outcomes.

457. (c) Prazosin
In men with hypertension and benign prostatic hypertrophy, an alpha-1 receptor blocker such as Prazosin is advantageous. It lowers blood pressure by reducing peripheral vascular resistance and also helps relieve urinary obstruction by relaxing the smooth muscle in the bladder neck and prostate. This dual benefit contrasts with many other antihypertensives which do not improve urinary symptoms. Hence, an alpha-1 blocker is often preferred when coexisting BPH needs symptomatic relief along with blood pressure control.

458. (b) Mitral valve replacement
For severe rheumatic mitral stenosis, percutaneous balloon valvuloplasty is generally preferred if the valve is pliable with minimal calcification or sub valvular involvement. However, if echo cardiography shows heavy calcification and marked thickening, the valve typically will not respond well to balloon dilation. In such a case, surgical intervention (particularly mitral valve replacement) becomes the best option for definitive treatment, as medical management alone is insufficient and balloon valvuloplasty has low success if the valve is extensively calcified.

459. (d) Shock
Respiratory failure is often classified into four types. Type IV respiratory failure occurs in patients who are in shock, leading to inadequate tissue perfusion and potential respiratory failure due to low oxygen delivery and high metabolic demands. Types I and II involve issues of oxygenation and/or CO_2 retention (like in asthma, COPD), while Type III (preoperative) is attributed to lung collapse around the time of anesthesia. Shock states (hypovolemia, cardiogenic, or septic) are prototype Type IV.

460. (a) Glomerulonephritis
Polyarteritis Nodosa (PAN) is a necrotizing vasculitis of medium-sized muscular arteries and typically involves various organs, leading to manifestations such as peripheral neuropathy (mononeuritis multiplex), bowel ischemia/infarction, and cardiac complications like pericarditis. Although renal arteries can be involved, PAN characteristically spares the pulmonary circulation and does not usually cause a primary glomerulonephritis. Renal involvement takes the form of infarctions or micro aneurysms rather than immune-complex-mediated glomerular inflammation. Hence glomerulonephritis is the feature generally not seen in PAN.

461. (c) Family history of psychiatric illness
An organic cause of psychiatric symptoms is often suspected when there is an unusually late onset of presentation, absence of prior psychiatric history, and lack of a clear psychosocial trigger. Such scenarios raise the possibility of a medical or neurological condition underlying the changes in mood or cognition. A known family history of similar psychiatric illness generally suggests a primary (functional) psychiatric disorder, making option (c) the one that least supports an organic etiology.

462. (a) Levo salbutamol
Long Acting Beta-2 Agonists (LABAs) include agents like Salmeterol, Formoterol, and Indacaterol, each providing prolonged bronchodilation, typically lasting 12 hours or more. Levo salbutamol (levosalbutamol) is the R-isomer of salbutamol (albuterol) and is

Downloaded from www.pdf.tube

categorized as a short-acting beta-2 agonist (SABA) with a duration of action around 4–6 hours. Therefore, levo salbutamol is not classified as LABA.

463. (c) Sarcoidosis
Sarcoidosis is characterized by non-caseating granulomas in multiple organs, commonly presenting with bilateral hilar lymphadenopathy, pulmonary involvement, and various systemic findings. Fever, arthralgia, and erythema nodosum (Löfgren's syndrome) are quite suggestive of acute sarcoidosis. A negative mantoux test, despite significant hilar lymphadenopathy, further points away from tuberculosis. Sarcoidosis can also involve the skin, eyes, and liver, among other organs.

464. (a) 1 and 3
Light's criteria classify a pleural effusion as exudative if one or more are met:
1. Pleural fluid protein/serum protein ratio 0.5
2. Pleural fluid LDH/serum LDH ratio 0.6
3. Pleural fluid LDH two-thirds the upper limit of normal serum LDH.

Hence statements 1 and 3 (protein 0.5, LDH ratio 0.6) characterize an exudative effusion.

465. (d) Hemolytic anemia
Whipple's disease, caused by Tropheryma whipplei, commonly presents with chronic mal absorptive symptoms such as diarrhea, weight loss, and steatorrhea. Patients can develop migratory arthralgias or polyarthritis, and about one-third may exhibit neurological manifestations, including cognitive changes or dementia. Hemolytic anemia is not a classic feature of this disease; instead, anemia—if present—usually arises from malabsorption and nutrient deficiencies. Thus, hemolysis is the exception.

466. (a) Spontaneous bacterial peritonitis
Spontaneous bacterial peritonitis (SBP) is common in cirrhotic patients with ascites, especially when PMN count is ≥250 cells/mm^3. Here, the total count is 500 cells/mm^3 with 85% PMNs. The low ascitic protein (0.8 g%) is typical in cirrhotic fluid, and the relatively normal glucose (100 mg%) helps distinguish SBP from secondary peritonitis (where glucose might be very low). TB peritonitis usually shows high protein content and predominantly lymphocytic ascites.

467. (c) Pityriasis rosea
Pityriasis rosea typically begins with a solitary herald patch — often a larger, oval, scaly lesion. After several days to weeks, multiple smaller lesions with a characteristic Christmas-tree pattern appear, usually along skin cleavage lines. Psoriasis, lichen planus, and dermatophytosis have different clinical patterns and do not begin with a distinct herald patch followed by widespread similar lesions in the same manner as pityriasis rosea.

NODIA

468. (c) Gilbert's syndrome
Gilbert's syndrome is a mild unconjugated hyperbilirubinemia due to reduced activity of the bilirubin-conjugating enzyme UDP-glucuronyl transferase. It often manifests as mild jaundice, which can become more noticeable during fasting, stress, or illness. There is typically no significant liver dysfunction or hemolysis. Normal examination and benign history further support Gilbert's. Dubin-Johnson and Rotor syndromes involve predominantly conjugated hyperbilirubinemia, and Crigler-Najjar type I is more severe.

469. (b) Hemoglobinopathy
Chronic kidney disease commonly causes anemia through several mechanisms: lower erythropoietin production (leading to inadequate RBC generation), shortened RBC lifespan, and sometimes increased GI losses due to platelet dysfunction. Hemoglobinopathies (such as thalassemia or sickle cell disease) are inherited disorders unrelated to CKD pathophysiology. Hence, hemoglobinopathy does not typically arise as a direct consequence of CKD and is thus the incorrect association in this list.

470. (c) Clonus
Upper Motor Neuron (UMN) lesions typically produce hyperreflexia, increased tone (spasticity), pathological reflexes (e.g., Babinski sign), and clonus (a rhythmic series

of contractions often triggered by sudden stretching). Fasciculations and significant muscle wasting occur with Lower Motor Neuron (LMN) pathology. Hyperreflexia is also a feature of LMN lesions. Thus, clonus is a classic sign of disordered descending motor control originating from UMN damage.

471. (d) Posterior inferior cerebellar artery
Lateral medullary (Wallenberg) syndrome typically results from occlusion of the Posterior Inferior Cerebellar Artery (PICA). The infarct affects structures in the lateral medulla such as the vestibular nuclei, spinal trigeminal nucleus, nucleus ambiguus, sympathetic fibers, and spinothalamic tract. Clinical features include vertigo, nystagmus, dysphagia, hoarseness, ipsilateral loss of facial pain and temperature sensation, and contralateral loss of pain/temperature in the body.

472. (b) Inappropriate affect
Damage to the dominant (usually left) angular and supramarginal gyrus can produce Gerstmann's syndrome, characterized by finger agnosia, inability to write (agraphia), left-right disorientation, and dyscalculia. Inappropriate affect is not part of this syndrome; rather, these parietal lesions cause specific cognitive/perceptual deficits rather than overt emotional disturbances. Hence, inappropriate affect is the feature that one would not expect in such a lesion.

473. (d) Iron deficiency anaemia
In iron deficiency anemia, the body upregulates transferrin production to capture more iron, causing a rise in total iron binding capacity (TIBC). A TIBC above approximately 360 μg/dl is typically associated with iron deficiency. By contrast, anemia of chronic disease or sideroblastic anemia usually shows normal or decreased TIBC. Hemoglobinopathies do not characteristically raise TIBC to high levels unless there is coincident iron deficiency.

474. (d) Panic disorder
Panic disorder is characterized by sudden episodes (paroxysms) of intense fear or discomfort accompanied by physical symptoms such as palpitations, sweating, and a sense of impending doom. Patients often exhibit an urge to escape or flee the situation. This escape behavior, alongside the sudden and recurrent nature of attacks, is a hallmark of panic disorder, distinct from the more persistent and situational anxieties seen in phobias or generalized anxiety disorder.

475. (d) 2 and 4
Prothrombin time (PT) reflects the extrinsic and common coagulation pathways, particularly factor VII. Factor VII deficiency therefore prolongs the PT. Warfarin, which blocks vitamin K-dependent factors (including factor VII), also prolongs PT. Factor VIII deficiency affects the intrinsic pathway and primarily prolongs aPTT, not PT. Heparin, under typical therapeutic dosing, is monitored by aPTT; it only significantly prolongs PT if given in very high doses. Hence factors VII deficiency and warfarin therapy are the clear causes of prolonged PT.

476. (a) Hyperlipidemia, Obesity, Type-2 DM
Syndrome X, also known as Metabolic Syndrome, typically involves central obesity, dyslipidemia (high triglycerides and/or low HDL), insulin resistance/type 2 diabetes mellitus, and hypertension. The combination of hyperlipidemia, obesity, and insulin resistance/diabetes captures the essence of Metabolic Syndrome. Coronary artery disease (CAD) risk is elevated but not an immediate diagnostic criterion. Hyponatremia does not figure into this syndrome's usual definition.

477. (b) Glucose
Growth Hormone (GH) release is stimulated by factors like arginine, clonidine, L-Dopa (via dopaminergic pathways), and GH-releasing hormone. Conversely, GH secretion is suppressed by hyperglycemia. A glucose load (oral or IV) lowers GH levels, which is the principle behind the oral glucose tolerance test for acromegaly diagnosis. Thus, among the listed options, glucose is the recognized inhibitor of GH release.

478. (c) Lithium

Click Here to Buy book on Amazon

endocarditis. Lesions like ventricular septal defect, patent ductus arteriosus, or Tetralogy of Fallot create more abnormal flow dynamics that are conducive to endocardial injury and subsequent infection. Hence, ASD carries the least risk for infective endocarditis among these choices.

509. (b) Dissection of aorta
Marfan's syndrome features connective tissue abnormalities that weaken the aortic wall and predispose to aortic dissection. The clinical presentation of a sudden, severe tearing or ripping chest and interscapular pain, very high blood pressure, and a widened mediastinum on chest X-ray strongly suggests acute aortic dissection. Sinus tachycardia may be a response to pain and stress. Pulmonary embolism more typically presents with pleuritic chest pain and dyspnea, while myocardial infarction and pericarditis have different hallmark clinical and ECG findings.

510. (b) Erythromycin
Patients with a penicillin allergy require an alternative antibiotic for the long-term prophylaxis of rheumatic fever. Macrolides, such as erythromycin, are recommended in place of penicillin to prevent recurrent Group A Streptococcal infections in susceptible individuals. Ciprofloxacin, a fluoroquinolone, is not typically used for rheumatic fever prophylaxis. Cotrimoxazole and tetracycline do not serve as standard prophylactic agents for this purpose either. Thus, erythromycin stands out as the suitable substitute in penicillin-allergic patients.

511. (a) Hypocalcaemia
A prolonged QT interval is classically associated with low serum calcium levels. In hypocalcemia, the duration of the ventricular action potential is prolonged, leading to lengthening of the QT segment on ECG. Hyperkalemia and hypermodernism typically produce different ECG changes (peaked T waves, shortened QT in hypercalcemia, etc.). Digoxin therapy usually causes a characteristic scooped ST segment (Salvador Dali mustache pattern) but is not primarily known for prolonging the QT interval.

512. (c) Patent ductus arteriosus with pulmonary arterial hypertension
Differential cyanosis refers to a scenario where the lower limbs (supplied distal to the ductus arteriosus) become more cyanotic than the upper body. In a PDA with significant pulmonary hypertension (Eisenmenger syndrome), the shunt reverses from right-to-left, causing deoxygenated blood to enter the aorta distal to the subclavian artery. Hence, the lower body receives blood that is less oxygenated, producing detectable cyanosis there. ASDs, VSDs, or Fallot tetralogy have different pathophysiological mechanisms that do not produce this pattern of differential cyanosis.

513. (d) Increased serum ceruloplasmin
Wilson's disease involves a defect in copper metabolism that leads to excessive copper deposition in tissues, including the liver, brain, and cornea (Kayser-Fleischer rings visible in Descemet's membrane). Elevated urinary copper excretion and hepatic copper content are also hallmarks. However, a decrease in serum ceruloplasmin is typical because ceruloplasmin is the copper-carrying protein in the blood. Low ceruloplasmin and high free copper often help confirm the diagnosis. Thus, increased serum ceruloplasmin is the incorrect statement.

514. (d) Cephalexin
Standard regimens for Helicobacter pylori eradication usually combine a proton pump inhibitor (PPI) with two antibiotics such as amoxicillin, clarithromycin, or metronidazole, and may include bismuth in quadruple therapy. Tetracycline and bismuth subsalicylate are also used in specific regimens (e.g., bismuth-based quadruple therapy). Cephalexin is typically not a recognized component of first-line or alternative H. pylori treatment regimens due to limited efficacy against this organism when compared with other recommended antibiotics.

515. (a) Plummer Vinson syndrome
Plummer Vinson syndrome (also called Paterson-Brown-Kelly syndrome) is characterized by the triad of iron-deficiency anemia, dysphagia, and esophageal webs. Koilonychia (spoon-shaped

NODIA

disorders, etc. and is not indicated for smoking cessation. While benzodiazepines may help with acute anxiety, they do not specifically target nicotine dependence or cravings.

487. (b) I.V. Thiamine
Ophthalmoplegia, ataxia, and confusion classically describe Wernicke's encephalopathy due to thiamine (vitamin B_1) deficiency, typically seen in chronic alcoholics. Prompt administration of intravenous thiamine is critical to prevent progression to Korsakoff syndrome (profound memory deficits). Giving glucose before thiamine can worsen the deficit. Mannitol is for reducing intracranial pressure and IV immunoglobulins are for immune-mediated conditions—neither addresses the fundamental problem of thiamine deficiency.

488. (b) AV Nodal Reentry Tachycardia (AVNRT)
Among the various types of paroxysmal supraventricular tachycardia (PSVT), AV Nodal Reentrant Tachycardia is the most frequent. It involves a reentry circuit within or around the AV node. Accessory pathway–mediated tachycardias (e.g., AVRT in WPW syndrome) are less common. Junctional ectopic tachycardia and accelerated junctional rhythms generally arise from subsidiary pacemakers or specific pediatric contexts, not typically the classic PSVT scenario encountered in adults.

489. (c) Permanent pacemaker
Sinoatrial (SA) node dysfunction—often termed sick sinus syndrome—may present with bradycardia, fatigue, syncope, or tachy-brady syndrome. While temporary measures (like IV atropine or isoprenaline) can transiently increase heart rate, definitive management for persistent, symptomatic SA nodal disease typically requires a permanent pacemaker to maintain adequate heart rates and prevent symptomatic bradycardia or pauses.

490. (d) 1, 2 and 3
End-stage lung diseases that are refractory to medical management can be indications for lung transplantation. These include advanced emphysema (as in end-stage COPD), idiopathic (primary) pulmonary hypertension, and certain chronic fibrotic or obstructive processes, such as obliterative bronchiolitis (post–lung transplant rejection or severe bronchiolar diseases). Thus, all three listed conditions can qualify for lung transplantation in selected patients.

491. (b) Flow/volume loops are recorded
Flow-volume loop analysis helps differentiate large (upper) airway obstruction from small (lower) airway disease. Fixed or variable obstructions in the trachea or main bronchi produce characteristic contour changes in the inspiratory or expiratory limbs of the loop. By contrast, measurements like FEV_1 or peak expiratory flow rate can document obstruction generally but do not specifically localize the site (large vs. small airways). The flow/time loop is less commonly used for localization.

492. (d) Irritable bowel syndrome
While inflammatory bowel diseases can cause episodic flares of diarrhea, irritable bowel syndrome (IBS) is much more prevalent overall. IBS often presents with chronic, intermittent (relapsing) abdominal pain and altered bowel habits—either diarrhea, constipation, or both in alternating fashion. It is a functional disorder with no identifiable structural pathology, but it is statistically the most common cause of chronic, relapsing diarrhea once organic causes are excluded.

493. (b) Diverticular disease
Large-volume, acute lower GI hemorrhage in adults—especially older individuals—is most frequently due to diverticular bleeding. Diverticula can erode into branches of the vasa recta, leading to sudden, often painless bleeding. Angiodysplasia can also cause bleeding but is somewhat less common. Ischemic colitis and inflammatory bowel disease typically produce more variable presentations. Therefore, diverticular disease remains the leading cause of severe acute lower GI bleeding.

494. (a) Modified Blatchford score
The Glasgow–Blatchford score (sometimes referred to in a modified form) is specifically designed to assess the severity of an upper GI

Downloaded from www.pdf.tube

Long-term lithium therapy can cause hypercalcemia by increasing parathyroid hormone (PTH) secretion and/or altering the parathyroid gland's set point. Other listed drugs commonly have different metabolic or electrolyte effects: phenytoin can influence vitamin D metabolism but generally not in a way that causes persistent hypercalcemia; heparin is not associated with hypercalcemia; and furosemide can cause increased calcium excretion, thereby lowering serum calcium levels.

479. (c) Glulisine
Insulin glargine, detemir, and degludec are all long-acting (or ultra-long-acting) insulins designed to provide a basal insulin level over many hours. By contrast, insulin glulisine is a rapid-acting insulin analogue, with onset in around 15 minutes and duration of action typically 3–5 hours. Hence, glulisine is the exception among the listed options.

480. (a) Autoimmune disease
Vitiligo is characterized by depigmented patches of skin resulting from loss of melanocytes. It often coexists with autoimmune conditions (e.g. autoimmune thyroiditis, pernicious anemia, Addison's disease) because of shared genetic and immunological factors. While vitiligo can be idiopathic, its presence frequently raises suspicion for underlying autoimmunity, and evaluation for other autoimmune disorders is often warranted.

481. (b) Subclinical hypothyroidism
Subclinical hypothyroidism is defined by an elevated TSH with normal circulating levels of T4 (and T3). Patients are often asymptomatic or have very mild symptoms, if any. In contrast, primary hypothyroidism typically features both high TSH and low T4. Thyroid hormone resistance is a rare genetic condition involving end-organ resistance. Lab artifacts do not explain persistently mild TSH elevations in the typical clinical setting.

482. (c) HbA1c 6.2%, FPG 105 mg/dL
Prediabetes criteria generally include:
1. Fasting Plasma Glucose (FPG) 100–125 mg/dL
2. HbA1c 5.7–6.4%

In option (c), the FPG of 105 mg/dL and HbA1c of 6.2% both lie within the prediabetic range. A fasting glucose of 126 mg/dL or higher typically signifies diabetes, as does an HbA1c ≥6.5%.

483. (c) Rickettsial fevers
Typical causes of lymphocytosis include infectious mononucleosis (marked atypical lymphocytes), many viral infections, and certain other chronic infections. Rickettsial fevers (e.g., spotted fevers, typhus) more commonly present with normal or slightly low/high total WBC counts but generally not a pronounced lymphocytosis. Leptospirosis is primarily neutrophil-predominant in early stages, but various viral fevers and especially mononucleosis classically cause elevated lymphocyte counts. Of the options given, rickettsial fevers are least likely to show a notable lymphocytosis.

NODIA

484. (c) Psoas abscess
A psoas abscess irritates the psoas muscle and typically presents with hip or lower back pain. The patient often holds the hip in flexion to reduce pain, leading to what appears as a hip flexor spasm. In septic arthritis of the hip, there is also limited movement, but the key posture of psoas irritation is one of persistent flexion. Osteomyelitis of the femur or DVT does not classically cause a characteristic hip flexion spasm.

485. (c) Hallucination
A hallucination is a false perception with no real external stimulus. In contrast, an illusion is a nociperception or distortion of a real external stimulus, and a delusion is a fixed false belief not in keeping with cultural norms. Psychosis is a broader term referring to a loss of contact with reality, often encompassing hallucinations, delusions, or severely disorganized thinking.

486. (b) Clonazepam
Mainstays of smoking cessation therapy include nicotine replacement (gum, patches, lozenges), bupropion (an antidepressant that helps reduce nicotine cravings), and varenicline (a partial nicotinic receptor agonist). Clonazepam, a benzodiazepine, is used for anxiety, seizure

4. Uremic complications (encephalopathy, pericarditis)

While very severe hypercalcemia might require dialysis in extremely rare settings, it is not one of the classic triggers in the usual AEIOU (Acidosis, Electrolytes [K^+], Intoxications, Overload, Uremia). Thus (b) is the EXCEPT.

502. (a) Nitrofurantoin

Nitrofurantoin, used for treating urinary tract infections, is well-known for causing pulmonary reactions, including hypersensitivity pneumonitis and eosinophilic lung infiltrates (pulmonary eosinophilia). Symptoms can range from acute cough and fever to chronic interstitial changes with prolonged use. While other drugs sometimes provoke allergic or eosinophilic responses, nitrofurantoin is classically associated with acute or subacute lung toxicity featuring eosinophilia on labs or histopathology.

503. (d) Pancreatic cancer

CA19-9 is a carbohydrate antigen most commonly elevated in pancreatic adenocarcinoma. While it can also be elevated in cholangiocarcinoma or other biliary tract malignancies, it is particularly linked to pancreatic tumors. It is not a primary screening test for the general population but can help monitor disease progression or response to therapy in confirmed pancreatic cancer. Other markers include PSA for prostate cancer, CA-125 for ovarian cancer, and CEA for some colorectal and other malignancies.

504. (d) Malassezia furfur

Tinea (pityriasis) versicolor presents as hypo- or hyperpigmented scaly patches, commonly on the trunk and upper arms. It is caused by Malassezia furfur, a lipophilic yeast that is part of normal skin flora but can overgrow under certain conditions (warm, humid climates, oily skin, immunosuppression). By contrast, tinea corporis or other ringworm infections are typically caused by dermatophytes like Trichophyton. Candida albicans and Streptococci are unrelated to classic pityriasis versicolor.

505. (c) Sulfasalazine

In ankylosing spondylitis, axial symptoms often respond best to NSAIDs and TNF inhibitors (biologics). However, for peripheral joint involvement (e.g. peripheral arthritis), a traditional DMARD like sulfasalazine can be effective. Methotrexate and leflunomide are used more for rheumatoid arthritis; hydroxychloroquine is also an RA or lupus drug. While methotrexate is sometimes tried off-label, sulfasalazine is generally recognized as the preferred conventional DMARD for peripheral manifestations in ankylosing spondylitis.

506. (c) Nitroprusside

In acute aortic dissection, rapid blood pressure control is crucial. Typically, IV β-blockade (e.g., esmolol, labetalol) is started first to reduce shear stress (dP/dt). If further BP reduction is needed, IV nitroprusside is added. Among the listed choices, nitroprusside (along with a beta-blocker) is the classic drug of choice for immediate control of severe hypertension in dissection. Pure vasodilators (like hydralazine or amlodipine) without concomitant beta-blockade can increase the aortic wall shear, so caution is mandatory.

507. (a) Hepatitis A does not lead to massive hepatic necrosis

While Hepatitis A infection is most often self-limiting and rarely progresses to fulminant hepatitis, it can lead to severe hepatic necrosis in a small percentage of cases. Thus, saying it does not lead to massive hepatic necrosis is inaccurate because fulminant hepatitis A—albeit uncommon—has been documented. On the other hand, Hepatitis B vaccination is indeed part of universal immunization schedules in many regions, Hepatitis C historically was the chief culprit in transfusion-related hepatitis, and Hepatitis E carries especially high mortality in pregnant women.

508. (b) Atrial septal defect

An atrial septal defect (ASD) is typically associated with less turbulent flow compared to other congenital cardiac lesions. Turbulent flow or high-velocity jets predispose to endothelial damage, which encourages thrombus formation and bacterial seeding—key factors for infective

Click Here to Buy book on Amazon

522. (b) 30-300 mg
Micro albuminuria is defined as a moderate increase in urinary albumin excretion: specifically, 30 to 300 mg over 24 hours. Below 30 mg/day is considered normal (number-cruncher), and values exceeding 300 mg/day are classified as macro albuminuria or overt proteinuria. Early detection of micro albuminuria is clinically relevant, especially in patients with diabetes or hypertension, because it signals the onset of nephropathy and heightened cardiovascular risk. Monitoring urinary albumin allows for earlier intervention to prevent or slow renal disease progression.

523. (d) Metabolic alkalosis
Acute renal failure (acute kidney injury) commonly results in the retention of fluid (causing intravascular volume overload), inability to excrete potassium (leading to hyperkalemia), and disturbances in sodium balance (often hyponatremia). Metabolic acidosis, not alkalosis, is typical in acute renal failure because decreased renal function impairs acid excretion and bicarbonate reabsorption. Hence, metabolic alkalosis is not a usual complication, making it the correct EXCEPT choice among the listed options.

524. (d) Vitamin B12
Subacute combined degeneration of the spinal cord is strongly linked to Vitamin B12 (cobalamin) deficiency. This condition involves demyelination in the dorsal columns (affecting proprioception and vibration sense) and the lateral corticospinal tracts (causing spasticity). Over time, it can produce a mix of sensory and motor deficits if not recognized and treated. While other B vitamins have roles in neurological function, only B12 deficiency classically causes subacute combined degeneration. Early detection and supplementation are crucial to prevent permanent damage.

525. (d) Asthma
In obstructive pulmonary diseases, airway narrowing leads to increased resistance to airflow, especially during expiration. Asthma is a prime example, characterized by reversible bronchoconstrictor and airway hyper responsiveness, resulting in classic obstructive changes on spirometry (reduced FEV1/FVC ratio). Obesity, kyphoscoliosis, and pleural effusion typically produce a restrictive pattern, with diminished lung volumes but relatively preserved airflow ratios. Therefore, among the listed choices, only asthma fits the hallmark of an obstructive ventilatory defect.

NODIA

526. (c) Alveolar hemorrhage
Diffusing capacity (DLCO) can rise when there is extra hemoglobin within the alveolar space that can bind the test gas (commonly carbon monoxide). Alveolar hemorrhage introduces blood into the alveoli, increasing the potential binding sites for CO and thus artificially elevating DLCO. Emphysema, idiopathic pulmonary fibrosis, and pulmonary edema usually impair normal diffusion by destroying alveolar walls or increasing diffusion distance—thereby reducing or normalizing DLCO rather than increasing it.

527. (b) Omalizumab is a blocking antibody that neutralises circulating IgE
Omalizumab is a monoclonal antibody used in moderate-to-severe persistent allergic asthma. It binds to the Fc region of free IgE, preventing IgE from attaching to mast cells and basophils, thereby reducing the allergic cascade. It is not an antileukotriene (like montelukast), nor is it a long-acting anticholinergic (such as tiotropium) or a beta-2 agonist (like salmeterol). Omalizumab is administered subcutaneously at intervals (often every 2-4 weeks), depending on serum IgE levels and clinical response.

528. (b) Pericarditis
Acute pericarditis often demonstrates diffuse, concave ST elevation and PR depression across multiple leads on an ECG, sparing aVR (which may show reciprocal changes). This pattern differs from ST elevations in myocardial infarction, which are typically localized to specific coronary territories. Digoxin toxicity can cause scooped ST segments and arrhythmias, while HOCM creates other characteristic ECG findings (e.g., left ventricular hypertrophy, deep septal Q waves). Thus, diffuse ST elevation

nails) is commonly observed in iron deficiency and supports this diagnosis. Boerhaave syndrome involves esophageal rupture, typically due to forceful vomiting. Carcinoma esophagus may cause progressive dysphagia but is not specifically associated with koilonychia. Reflux oesophagitis often presents with heartburn and acid reflux symptoms rather than the distinct combination seen in Plummer Vinson syndrome.

516. (c) Pleural effusion is less than 10 mm thickness on decubitus
Indications for chest tube insertion in parapneumonic effusions or empyema include the presence of frank pus, positive pleural fluid cultures, very low pleural fluid pH (often <7.2), and loculations preventing proper drainage. A thin effusion (<10 mm on decubitus film) is typically too small to drain via tube thoracostomy and often can be managed conservatively with antibiotics. Thus, effusions smaller than 10 mm do not meet common criteria for chest tube placement, making this the correct EXCEPT statement.

517. (a) Pulmonary embolism
A classic triad of dyspnea, pleuritic chest pain, and hemoptysis shortly after surgery strongly suggests pulmonary embolism (PE). Orthopedic surgeries such as hip replacement carry significant risk of venous thromboembolism if prophylaxis is inadequate or other risk factors are present. Pneumonia would more commonly present with fever, productive cough, and focal consolidation on examination. Pulmonary edema typically lacks the sharp pleuritic pain and hemoptysis is less common. Pericarditis produces chest pain often relieved by leaning forward and not typically associated with hemoptysis.

518. (c) Respiratory acidosis, partially compensated
The arterial blood gas (ABG) shows a low pH (7.3), indicating acidemia. The $PaCO_2$ is elevated (68 mmHg), consistent with a respiratory acidosis. The bicarbonate (HCO3) is also elevated at 28 mmol/L, reflecting some metabolic compensation, but not enough to normalize the pH. This partial compensation is typical of an acute on chronic exacerbation of COPD, where chronic CO_2 retention has led to some renal compensation, but the acute rise in CO_2 still drives the pH below normal.

519. (c) Idiopathic thrombocytopaenic purpura
Hemophilia A and B are X-linked recessive coagulopathies that predominantly affect males, making them less likely in a 40-year-old female with bleeding symptoms. Henoch-Schonlein purpura usually presents in children with a characteristic purpuric rash over buttocks and legs, often alongside abdominal pain and renal involvement. Idiopathic thrombocytopenic purpura (ITP) features low platelet counts leading to mucocutaneous bleeding (ecchymoses, menorrhagia, possible hematuria). Chronic ITP is more common in adult women and fits the six-month history of bleeding symptoms.

520. (b) Protein C deficiency
Warfarin-induced skin necrosis typically occurs a few days after initiating therapy, especially in patients with underlying Protein C deficiency. Protein C is a natural anticoagulant with a shorter half-life than most pro coagulant factors. When warfarin is started, it rapidly decreases Protein C levels before reducing other clotting factors, temporarily creating a hypercoagulable state. This can lead to localized thromboses in the microvasculature of the skin, resulting in necrosis. Anti phospholipid syndrome, DIC, and TTP have distinct clinical contexts and do not specifically follow this warfarin time line.

NODIA

521. (a) IgA nephropathy
IgA nephropathy (Berger's disease) classically presents with gross hematuria that occurs soon (often within days) after a respiratory or other mucosal infection. It results from IgA immune complex deposition in the mesangium. Post-streptococcal glomerulonephritis typically appears 1–3 weeks after a streptococcal infection and is more often associated with low complement levels. Wegener's granulomatosis (Granulomatosis with polyangiitis) and Churg-Strauss (Eosinophilic granulomatosis) involve systemic vasculitis and present with additional respiratory findings, not just isolated hematuria.

bleed and predict the need for intervention such as endoscopy, transfusions, or surgery. The Child-Pugh and MELD scores are primarily used for assessing severity of chronic liver disease and cirrhosis. The Balthazar score relates to the severity of pancreatitis on imaging. For acute upper GI bleeding, the Blatchford score is the well-recognized stratification tool.

495. (d) 1, 2 and 3
Renal biopsy is indicated to diagnose specific glomerular or interstitial pathologies when noninvasive tests do not suffice. Adults with nephrotic syndrome generally require biopsy to determine the underlying cause. Children with typical minimal change disease might be treated empirically, but if features are atypical or the response is unusual, a biopsy is warranted. Patients with progressive chronic kidney disease yet normal kidney size on imaging often undergo biopsy to identify treatable causes (e.g., glomerulonephritis).

496. (d) 1, 2 and 3
Contrast-induced nephropathy (CIN) is especially likely in patients who receive older, high-osmolal contrast agents, as well as in those with comorbidities such as diabetes mellitus or chronic kidney disease. Multiple myeloma also increases risk because of the high protein load and potential renal impairment. Modern low- or iso-osmolal contrast media reduce the incidence but do not eliminate the risk, which remains highest in individuals with these pre-existing risk factors.

497. (b) Nephritis
Dysmorphic (or glomerular-type) RBCs in the urine strongly suggest a glomerular origin of hematuria, as the RBCs become distorted while passing through the damaged glomeruli. This finding is characteristic of inflammatory or proliferative renal pathologies—commonly referred to under the umbrella of nephritis (e.g., acute glomerulonephritis, rapidly progressive GN). In contrast, infections of the lower urinary tract or pyelonephritis, stones, or simple UTIs tend to show isomorphic RBCs and possibly WBCs/bacteria, not dysmorphic RBCs.

498. (a) Small cell lung cancer
SIADH commonly arises from ectopic ADH production by malignancies, and small cell lung cancer is by far the most frequent culprit among lung neoplasms. These tumors have neuroendocrine properties that predispose them to inappropriate secretion of antidiuretic hormone (ADH). As a result, patients develop euvolemic hyponatremia, low serum osmolality, and inappropriately high urine osmolality. Other subtypes of lung cancer (e.g. squamous, large cell, adenocarcinoma) may less commonly produce ectopic hormones, but small cell lung cancer is classically implicated in SIADH.

499. (b) Pneumothorax
A pneumothorax introduces air into the pleural space, creating a silent hemithorax (absent breath sounds) on auscultation and a hyper-resonant (drum-like) note on percussion. In contrast, a large pleural effusion typically produces diminished breath sounds but a dull percussion note. Bronchial asthma causes diffuse wheezing, and lobar consolidation yields bronchial breathing with dullness. Therefore, silent plus resonant best points to pneumothorax.

500. (b) Duchenne's dystrophy
Gower's sign is classically associated with Duchenne Muscular Dystrophy (DMD). It demonstrates proximal lower limb muscle weakness: the child must walk his hands up his legs to rise from the floor. DMD results from a mutation in the dystrophin gene, causing severe progressive muscle degeneration starting in early childhood. Peroneal muscle atrophy, Friedreich ataxia, or cerebellar disorders do not typically exhibit Gower's maneuver.

501. (b) Hypercalcemia
Common urgent indications for dialysis (renal replacement therapy) include:
1. Intractable metabolic acidosis (pH < 7.2–7.25)
2. Life-threatening hyperkalemia (K^+ typically >6.0 or with ECG changes)
3. Significant volume overload unresponsive to diuretics

Downloaded from www.pdf.tube

and PR depression is most consistent with pericarditis.

529. (d) Loop diuretics are usually well tolerated
Congestive heart failure becomes more common with advancing age, typically spurred by conditions like coronary artery disease and long-standing hypertension. The elderly also frequently develop diastolic dysfunction due to stiffening of the left ventricle. However, loop diuretics may cause significant electrolyte imbalances, hypovolemia, and renal function changes in older adults. They are not necessarily well tolerated, as older patients are more prone to side effects such as dehydration, acute kidney injury, and arrhythmias.

530. (b) Pulsus parvus et tardus
A classic physical finding in significant aortic stenosis is a slow-rising, small-volume pulse known as pulsus parvus et tardus (weak and late). The stenotic aortic valve impedes blood flow during systole, causing the pulse to peak later and remain diminished in amplitude. Pulsus paradoxus is more typical of conditions like cardiac tamponade, while pulsus alternans and bigeminus are generally related to left ventricular systolic dysfunction or arrhythmias.

531. (d) 1, 2 and 3
All three conditions listed increase thrombotic risk. Protein C deficiency removes an important natural anticoagulant, promoting clot formation. Antiphospholipid syndrome features autoantibodies that enhance thrombosis in arterial or venous circulations. Homocystinemia also predisposes to both arterial and venous thrombosis, partially through endothelial injury. Thus, all 1 (Protein C deficiency), 2 (Antiphospholipid syndrome), and 3 (Homocystinemia) are recognized hypercoagulable states.

532. (a) 0
The CURB-65 score estimates pneumonia severity based on: Confusion (absent here), Urea 20 mg/dL or BUN 19 mg/dL (his is 18 mg/dL, below threshold), Respiratory rate ≥ 30/min (he has 22/min), low Blood Pressure (<90 systolic or ≤60 diastolic—he's at 120 systolic), and age ≥65 (he is only 20). He meets none of the criteria, so his CURB score is 0, implying relatively low severity and potentially suitable for outpatient treatment.

533. (d) Marfan syndrome
Marfan syndrome is inherited in an autosomal dominant fashion, caused by mutations in the FBN1 gene coding for fibrillin-1. G-6PD deficiency is X-linked recessive, often presenting with hemolytic anemia under oxidative stress. Sickle cell disease and Fanconi anemia both follow autosomal recessive patterns. Thus, among the listed conditions, only Marfan syndrome demonstrates autosomal dominant inheritance.

NODIA

534. (b) 3, 4 and 5 only
Statement 1 is false because inhaled β_2 agonists (via aerosol) are generally more effective and have fewer systemic side effects than oral forms. Statement 2 is false because inhaled corticosteroids are not contraindicated in severe acute asthma, though systemic steroids are often more critical. Statements 3, 4, and 5 are correct: oral (or IV) steroids are often required in severe acute episodes, anticholinergics (e.g., ipratropium) block muscarinic receptors, and salmeterol/formoterol are indeed long-acting selective β_2 agonists.

535. (b) Pulmonary opacities in chest X ray
Massive pulmonary embolism often presents with severe hypoxemia ($\downarrow PaO_2$) and respiratory alkalosis ($\downarrow PaCO_2$) due to hyperventilation. ECG may reveal the classical $S_1Q_3T_3$ pattern and/or right bundle branch block. The acute strain on the right ventricle can reduce cardiac output and precipitate right heart failure. Typical chest radiographic findings in an acute PE may be subtle or even normal; large consolidation-type opacities are not a hallmark. Therefore, among the listed options, (b) is the best EXCEPT.

536. (b) 2 and 3
A large spontaneous pneumothorax in a COPD patient (i.e., secondary spontaneous pneumothorax) generally warrants immediate

chest tube placement (tube thoracostomy) to re-expand the lung and relieve symptoms. Pleurodesis (chemical or mechanical) may be considered for recurrent pneumothoraces or if the air leak is persistent. Simple aspiration is more often limited to primary spontaneous pneumothoraces that are not large or tension-related. Hence, for a large pneumothorax in COPD, steps 2 and 3 are appropriate.

537. (c) 35-45 mm of Hg
Normal arterial $PaCO_2$ under standard conditions at sea level ranges between 35 and 45 mmHg. Levels below this suggest hyperventilation leading to respiratory alkalosis, whereas elevations above 45 mmHg indicate hypo ventilation and potential respiratory acidosis.

538. (c) Alveolar ventilation
Alveolar ventilation (VA) refers to the volume of air that actually reaches the gas-exchanging alveoli per minute. It excludes the air remaining in the conducting airways (anatomical dead space). Diffusing capacity measures how well gases diffuse across alveolar membranes, while dead space is the volume of non-gas-exchanging airways. Ventilation-perfusion (V/Q) describes the matching of air flow and blood flow in the lungs but is not a direct measure of the volume of fresh air entering alveoli per minute.

539. (a) Brittle asthma
Brittle asthma describes a pattern of asthma characterized by wide peak flow variability or severe, sudden attacks that can occur with minimal warning. Type 1 brittle asthma involves persistent variability in peak flow despite intense treatment, while Type 2 describes abrupt, unpredictable attacks. Acute severe asthma is a general term for a dangerous flare, poorly controlled asthma refers to inadequate control over time, and nocturnal asthma is a pattern of worsened symptoms overnight.

540. (b) Aluminium hydroxide
Aluminum hydroxide is well-known to cause constipation by reducing intestinal motility. Magnesium-based antacids, on the other hand, tend to have a laxative effect. Calcium carbonate can cause constipation in some individuals but is less noted for this than aluminum. Sodium bicarbonate can lead to metabolic alkalosis or sodium overload but is not typically associated with constipation.

541. (c) Transjugular intrahepatic portosystemic shunt
A TIPS is a radiologically guided procedure in which an interventional radiologist creates a channel within the liver parenchyma connecting a branch of the portal vein to a hepatic vein. This helps decompress portal hypertension by allowing blood to bypass the cirrhotic liver sinusoids, reducing complications like variceal bleeding. Transjugular intrahepatic portosystemic shunt accurately describes both the vascular access route (via the jugular vein) and the portal-systemic connection created.

542. (c) There is stimulation of central dopamine receptors in hypothalamus
Neuroleptic malignant syndrome (NMS) is a potentially life-threatening reaction to dopamine antagonists (e.g., haloperidol). It typically involves blockade of dopamine pathways, not stimulation. This leads to muscle rigidity, hyperthermia, altered mental status, and autonomic instability. Management often includes stopping the offending agent, supportive care, dopamine agonists (e.g., bromocriptine), and use of dantrolene to mitigate hyperthermia and rigidity. Hence, statement (c), mentioning stimulation rather than blockade, is not true.

543. (c) Penicillin
Type IV RTA involves hypoaldosteronism or aldosterone resistance, leading to hyperkalemia and mild metabolic acidosis. Certain drugs contribute to decreased aldosterone production or activity: low molecular weight heparin reduces aldosterone synthesis, NSAIDs diminish renin release, and trimethoprim blocks sodium channels in the distal nephron (mimicking aldosterone resistance). Penicillin does not commonly induce Type IV RTA, making it the correct EXCEPT.

544. (d) All of these

Click Here to Buy book on Amazon

Renal artery stenosis (especially when caused by atherosclerosis or fibromuscular dysplasia) can be managed in multiple ways. Medical therapy includes antihypertensives (e.g., ACE inhibitors, although caution if bilateral involvement). Percutaneous trans luminal renal angioplasty (with or without stenting) is an intervention al approach. Surgical re vascularization (e.g., bypass) may be indicated in certain refractory or complex cases. Thus, all of the above can play a role in management, depending on the scenario.

545. (d) Subdural haematoma
Chronic subdural hematomas, especially in older adults or those on anticoagulation, may present with gradually worsening confusion, cognitive decline, and other neurological deficits. Because the fluid collection exerts pressure on the brain, it can mimic dementia. However, prompt diagnosis and surgical drainage can reverse many of these symptoms, making it a rare but significant reversible cause. Alzheimer's, Huntington's, and Parkinson's disease–related dementia are progressive and not generally reversible.

546. (a) Lateral medulla
Wallenberg syndrome (lateral medullary syndrome) typically arises from occlusion of the posterior inferior cerebellar artery (PICA) or vertebral artery. The infarction affects the lateral part of the medulla oblongata. Clinical features include ipsilateral loss of pain and temperature sensation on the face, dysphagia, hoarseness, vertigo, ataxia, and contralateral loss of pain and temperature on the body. Medial medulla, pontomedullary junction, and dorsal midbrain infarctions have distinct syndromes with different neurological deficits.

547. (d) Elevated plasma erythropoietin levels
Polycythemia vera (PV) is a myeloproliferative disorder in which the RBC mass is pathologically increased. Arterial oxygen saturation remains normal (unlike secondary polycythemia due to hypoxia). Splenomegaly is common due to extramedullary hematopoiesis. However, because the overproduction of RBCs is primary (driven by JAK2 mutations), erythropoietin (EPO) is typically low or suppressed, not elevated. Thus, high plasma EPO is seen more in secondary polycythemia, making (d) the EXCEPT.

548. (d) Desquamative interstitial pneumonia
Desquamative interstitial pneumonia (DIP) is one of the idiopathic interstitial pneumonias strongly linked to cigarette smoking. It is characterized by the accumulation of macrophages within alveolar spaces, often responding favorably to smoking cessation and/or steroids. Non-specific interstitial pneumonia, acute interstitial pneumonia, and cryptogenic organizing pneumonia have different etiologies and are not so characteristically tied to smoking as DIP is.

549. (c) Serum ceruloplasmin is increased
Wilson disease is an autosomal recessive disorder resulting in abnormal copper metabolism with deposition primarily in the liver and basal ganglia (hepatolenticular degeneration). Patients exhibit elevated urinary copper and decreased serum ceruloplasmin (the copper-carrying protein), not an increase. Thus, statement (c) is not true. The lowered ceruloplasmin and consequent free copper accumulation underlie the disease's hepatic and neurological manifestations.

550. (d) Pityriasis rosea
Pemphigus vulgaris is an autoimmune bullous disorder with intra epidermal blisters. Bullous impetigo (caused by Staphylococcus aureus) features superficial bullae. Toxic epidermal necrolysis (TEN) leads to widespread epidermal detachment and bullae formation. By contrast, pityriasis rosea typically manifests as oval erythematous scaly lesions in a Christmas tree pattern on the trunk, not true bullae. Thus, (d) is the condition in which bullous lesions are generally not a feature.

NODIA

551. (a) Cystic fibrosis
Cystic fibrosis results from mutations in the CFTR gene and follows an autosomal recessive inheritance pattern. Nail-patella syndrome and myotonic dystrophy are autosomal dominant. Huntington disease is also autosomal dominant, caused by expansions of CAG repeats in the

diseases (like lung abscess or bronchiectasis), and right-to-left shunt conditions (e.g., pulmonary AV fistula). Although chronic bronchitis can produce cyanosis (blue bloater), it generally does not cause significant clubbing. Thus, (c) is the correct exception.

601. (b) Mitral stenosis
A classic sequel of rheumatic heart disease (often following migratory polyarthritis) is mitral valve stenosis. Patients typically present years later with exertional dyspnea, orthopnea or PND, and sometimes hemoptysis due to elevated pulmonary venous pressures. The history of joint pains five years ago likely indicates rheumatic fever, which commonly affects the mitral valve. Aortic regurgitation or stenosis can also occur in rheumatic heart disease but more commonly in conjunction with mitral involvement.

602. (b) 1 and 3
Primary adrenal insufficiency (Addison's disease) typically causes hyponatremia, hyperkalemia (not hypokalemia), metabolic acidosis, and low blood glucose (not hyperglycemia) due to cortisol and often aldosterone deficiency. Therefore, only statements 1 (hyponatremia) and 3 (acidosis) are correct in the above list.

603. (d) It occurs in association with MEN-2 syndrome
Zollinger-Ellison syndrome (ZES) involves a gastrin-secreting tumor (gastrinoma) leading to high gastrin levels, often causing multiple or refractory peptic ulcers and frequent diarrhea. It commonly presents in the 30–50 age range. ZES is classically associated with Multiple Endocrine Neoplasia type 1 (MEN-1), not MEN-2. Thus, statement (d) is the incorrect one.

604. (d) Decreased factor VIII
Chronic liver disease impairs synthesis of most clotting factors, prolonging PT and PTT, and can also lead to splenomegaly with thrombocytopenia. Factor VIII, however, is unique because it is produced primarily by endothelial cells rather than only by hepatocytes. In chronic liver disease, factor VIII levels are usually normal or even elevated. Consequently, decreased factor VIII is not typical of chronic liver disease.

605. (b) Idiopathic pulmonary fibrosis
Idiopathic pulmonary fibrosis is a prototypical restrictive lung disease marked by decreased total lung capacity (TLC) and vital capacity (VC), but a near-normal or increased FEV_1/FVC ratio. The bilateral basal crackles (Velcro crackles) are also classic. Chronic bronchitis and cystic fibrosis typically cause obstructive patterns (reduced ratio). Allergic bronchopulmonary aspergillosis presents with episodic wheezing and bronchiectasis rather than a classic restrictive profile.

606. (c) Aneurysmal subarachnoid bleed
A thunderclap headache (very severe, sudden onset) plus neck stiffness strongly suggests subarachnoid hemorrhage (SAH). A ptosis, particularly if combined with partial third-nerve involvement, may point to a posterior communicating artery aneurysm that has bled. Hypertensive hemorrhages often present with focal deficits in deep brain structures, whereas pyogenic meningitis typically develops more gradually with fever. Migraine seldom causes neck stiffness or acute ptosis.

607. (c) TIPS
Hepatic encephalopathy management commonly includes lactulose (to reduce ammonia absorption), non-absorbable antibiotics like rifaximin, and correction of electrolyte imbalances. By contrast, transjugular intrahepatic portosystemic shunt (TIPS) actually can worsen encephalopathy because it diverts blood flow away from the liver, reducing hepatic clearance of toxins. Hence TIPS is not used to treat encephalopathy, though it may be indicated for refractory variceal bleeding.

608. (d) Increased serum haptoglobin
In intravascular hemolysis, red cells rupture within the bloodstream, releasing hemoglobin. Typical findings include elevated lactate dehydrogenase (LDH), hemoglobinuria (due to hemoglobin free in the plasma and filtered by kidneys), and increased unconjugated bilirubin (from heme breakdown). Serum haptoglobin

Downloaded from www.pdf.tube

Granulomatosis with poly angiitis (formerly Wegener's) is a small vessel vasculitis that often presents with involvement of the upper airways (chronic sinusitis), lungs (hemoptysis), and kidneys (hematuria), along with systemic features like arthralgias and purpura. Goodpasture's involves lungs and kidneys but typically lacks significant sinus or upper respiratory granulomatous involvement. Polyarteritis nodosa usually spares the lungs, and SLE has a broader systemic spectrum, often with different immunologic markers.

560. (d) Menetrier disease
Whipple disease, tropical sprue, and celiac disease are all malabsorptive disorders that commonly lead to diarrhea, steatorrhea, and weight loss. By contrast, Ménétrier disease is characterized primarily by hypertrophic gastric mucosal folds, protein-losing gastropathy, and hypoproteinemia. It is not typically associated with pronounced steatorrhea or classic malabsorption. Therefore, among the listed options, Menetrier disease is the least likely cause of chronic diarrhea and significant malabsorption.

561. (b) 2, 3 and 4 only
Post-streptococcal glomerulonephritis typically appears 1–3 weeks after a group A strep pharyngeal infection, or 2–6 weeks following a skin (impetigo) infection. It generally presents with acute nephritic syndrome (hematuria, edema, hypertension). Immunosuppressive therapy (beyond supportive care, antibiotics, and controlling blood pressure/volume) is not usually required or effective in straightforward PSGN. Thus, statements 2, 3, and 4 are correct, whereas statement 1 is not.

562. (c) Superior vena cava obstruction
Superior vena cava (SVC) obstruction or SVC syndrome involves impaired blood return from the head and upper extremities to the heart. It causes venous congestion in the neck and face, leading to swelling, distended neck veins, and sometimes respiratory or swallowing difficulties. Symptoms can worsen when supine because venous return is further compromised. Cardiac tamponade and pulmonary embolism present differently, while an intracardiac thrombosis typically produces other hemodynamic or embolic features rather than prominent facial/neck swelling.

NODIA

563. (b) Bronchiectasis
Bronchiectasis is characterized by irreversible dilatation of bronchi, resulting in recurrent infections, chronic production of large amounts of purulent sputum, and frequent exacerbations. Digital clubbing is common in chronic suppurative lung diseases, including bronchiectasis. Empyema is a localized pus collection in the pleural space, whereas bronchopneumonia is an acute infection of the lung parenchyma. Necrotizing pneumonia can cause lung abscesses but is not the prototypical cause of chronic, large-volume purulent sputum with repeated episodes.

564. (a) Hypersensitivity pneumonitis
Hypersensitivity pneumonitis (extrinsic allergic alveolitis) results from an immune-mediated reaction to inhaled organic antigens or occupational exposures. An acute episode typically begins a few hours after exposure, causing fever, chills, malaise, cough, and dyspnea, and it often resolves within a few days once the person is removed from the offending agent. Atypical pneumonia and the other listed interstitial lung diseases usually present over longer durations or with different clinical patterns.

565. (c) Intravenous administration of atropine sulfate
In acute inferior wall myocardial infarction, marked bradycardia (heart rate 40/min) and hypotension often reflect excessive vagal tone or AV nodal involvement. The initial step is intravenous atropine, which blocks vagal influence on the heart, thereby improving heart rate and blood pressure. If atropine fails, temporary pacing may be needed. Normal saline bolus is more specific if right ventricle involvement is confirmed, while isoprenaline infusion is rarely first-line. Thus, atropine is the most appropriate immediate management.

HTT gene. Thus, among the listed options, only cystic fibrosis is autosomal recessive.

552. (b) Severe rheumatoid arthritis
IVIG is a key therapy in Kawasaki disease (to prevent coronary artery aneurysms), Guillain-Barré syndrome (to hasten recovery), and can be used in refractory dermatomyositis. While certain experimental or off-label uses exist, IVIG is not a standard or commonly approved therapy for severe rheumatoid arthritis, which is generally managed with disease-modifying anti-rheumatic drugs (DMARDs), biologics (e.g., TNF inhibitors), and other immunosuppressants. Hence, (b) is the exception.

553. (c) Kawasaki disease
Kawasaki disease predominantly involves medium-sized vessels (especially coronary arteries), distinguishing it from classic small-vessel vasculitides. Churg-Strauss syndrome (now called eosinophilic granulomatosis with polyangiitis), Henoch-Schönlein purpura (IgA vasculitis), and granulomatosis with polyangiitis (Wegener's) primarily affect small vessels (arterioles, capillaries, venules). Thus, (c) is the condition that does not fall under the small vessel vasculitis category.

554. (d) Neutrophils
Chronic myeloid leukemia (CML) is characterized by a marked increase in granulocytes at all stages of maturation. While myelocytes are classically said to be the most common immature form, in terms of total cell count, mature neutrophils typically predominate in the peripheral smear. Pro myelocytes and myeloblasts remain a smaller fraction during the chronic phase (blasts usually <10%). Hence, among the given options, neutrophils are the most frequently observed cell type in a typical CML smear.

555. (b) 1, 2 and 4 only
The Modified Duke criteria are the standard for diagnosing infective endocarditis (IE). Major criteria include typical positive blood cultures or echo cardiographic evidence of endocardial involvement. Minor criteria include fever, predisposing heart condition or IV drug use, vascular phenomena, immunologic phenomena (such as glomerulonephritis), and certain microbiologic or echo cardiographic findings not meeting major criteria. Definite IE commonly requires two major, or one major plus three minor, or five minor. Thus, statement (3)—one major and two minor as diagnostic—is incorrect.

556. (b) Asthma
Asthma often presents with episodic wheezing, coughing, and shortness of breath, frequently worse at night or in the early morning (nocturnal asthma). Symptoms often resolve spontaneously or with bronchodilator. Pulmonary edema would typically show additional signs such as frothy sputum and findings of fluid overload. Panic attacks can cause hyperventilation but do not typically produce wheezing. Pneumonia usually has more persistent symptoms with fever and focal chest signs.

557. (b) 2 only
A key eligibility criterion for thrombolysis in acute ischemic stroke is that the onset of symptoms must be within 4.5 hours; this is not a contraindication—indeed, it is the standard window. Recent major bleeding events, however, are generally contra indications because of the high risk of hemorrhage with thrombolytic therapy. Gastrointestinal bleeding within 21 days is a relative or absolute contraindication, depending on severity. Thus, statement (2) is a contraindication, while (1) is not.

558. (c) 1, 2 and 4 only
Insulin aspart and insulin glulisine are rapid-acting analogs, typically beginning action within minutes. Regular (crystalline) insulin is classically termed short-acting, with onset around 30 minutes. By contrast, insulin detemir is a long-acting insulin analog used mainly for basal coverage. Therefore, aspart, glulisine, and regular insulin all fall under short or rapid coverage, whereas detemir does not.

559. (a) Wegener granulomatosis (Granulomatosis with polyangiitis)

Click Here to Buy book on Amazon

to swing arms), 3 (cogwheel rigidity), and 4 (festinate gait) characterize Parkinsonism.

574. (b) 1, 2 and 4
A right homonymous hemianopia is caused by damage to the left side of the visual pathway beyond the optic chiasma. This includes the left optic tract (1), the left lateral geniculate body (4), and the left optic radiations (2). Lesions in the optic chiasma typically produce bitemporal hemianopia, not homonymous defects. Therefore, 1, 2, and 4 is correct.

575. (d) Multiple myeloma
Alkaline phosphatase (ALP) elevates in conditions with increased osteoblastic activity (e.g., osteomalacia, hyperparathyroidism) or cholestasis (obstructive jaundice). In multiple myeloma, lesions are predominantly osteolytic with minimal osteoblastic response, so serum ALP remains normal or only mildly elevated. Hence, multiple myeloma is the condition listed that typically does not produce a high ALP.

576. (c) 1, 2 and 4
Acromegaly often features fibroma molluscum (skin tags) and acanthosis nigricans (1), while TRH abnormally stimulating growth hormone release (2) occurs in many acromegalic patients. Around 25% may develop diabetes mellitus (4) due to insulin resistance. True acroosteolysis is not typically described as a common finding; radiographs more often show spade-like hands rather than marked osteolysis. Hence, statements 1, 2, and 4 are correct.

577. (a) Betablocker
Hypomagnesemia arises from conditions that impair absorption or increase renal excretion of magnesium, including chronic pancreatic insufficiency (malabsorption), poorly controlled diabetes mellitus (osmotic diuresis), and alcoholism (nutritional deficiency). Beta-blockers do not typically cause significant urinary magnesium loss or malabsorption, making them the exception among the listed options.

578. (b) 1, 2 and 3
Secondary diabetes occurs from diseases that alter insulin secretion or increase insulin resistance. Thyrotoxicosis, pheochromocytoma, and acromegaly can elevate glucose via excess hormones. Hemochromatosis (bronze diabetes) damages pancreatic islets by iron deposition. Pancreatic carcinoma can destroy insulin-producing cells. Thus, 1, 2, and 3 are all recognized causes of secondary diabetes.

579. (b) Tall P-wave
ECG signs of hyperkalemia include tall, peaked T waves, prolonged PR intervals, flattened or absent P waves, and widened QRS complexes as potassium levels rise. A tall P-wave is not characteristic; instead, P waves are usually diminished. Hence, a tall P-wave does not belong among hyperkalemia ECG changes.

580. (b) Type II cytotoxicity
Goodpasture's syndrome involves autoantibodies directed against the glomerular and alveolar basement membranes, causing both renal and pulmonary pathology. This corresponds to a Type II hypersensitivity (cytotoxic) reaction, where antibodies bind directly to antigens on cell surfaces or extracellular matrix, resulting in complement activation and tissue injury.

581. (a) Pneumomediastinum
Superior vena cava (SVC) syndrome is most commonly due to tumors or masses compressing or invading the SVC in the mediastinum—classically bronchogenic carcinoma or lymphoma. A significantly enlarged (retrosternal) goitre can also compress the SVC. Pneumomediastinum involves air in the mediastinum, but it typically does not compress the SVC enough to cause SVC syndrome. Thus, pneumomediastinum is the exception.

582. (d) A4 B1 C3 D2
Koebner phenomenon (A) describes the appearance of new lesions along lines of trauma and is classic in psoriasis (4). Erythema nodosum (B) may occur in Type 2 lepra reaction (1). Erythema multiforme (C) is closely related to Stevens-Johnson syndrome (3). Nikolsky's sign (D) is positive in conditions like pemphigus

Downloaded from www.pdf.tube

vulgaris (2), where slight skin pressure dislodges the epidermis.

583. (b) Terminal ileum
Vitamin B12 (cobalamin) is bound to intrinsic factor secreted by gastric parietal cells. After passing through the stomach and small bowel, the B12–intrinsic factor complex is absorbed predominantly in the terminal ileum. The stomach and duodenum are not the principal sites of cobalamin absorption.

584. (c) Ocular muscle involvement is common
Polymyositis typically causes symmetrical, progressive proximal muscle weakness (e.g. hips, shoulders). About a quarter of patients may experience dysphagia due to involvement of striated muscles in the esophagus. Serum creatine kinase (CK) is frequently elevated. Importantly, unlike myasthenia gravis or certain muscular dystrophies, ocular muscle involvement (ptosis or diplopia) is not characteristic of polymyositis, making option (c) the false statement.

585. (b) A2 B4 C1 D3
Reiter's (reactive) arthritis frequently presents with keratoderma blennorrhagica on the palms/soles (A→2). Rheumatoid arthritis is associated with Baker's cysts (B→4). Psoriatic arthritis typically involves nail changes like onycholysis (C→1). Sjögren's syndrome causes dryness of mucous membranes, including the mouth (xerostomia) (D→3).

586. (a) Resperidone
Generalized anxiety disorder (GAD) is commonly treated with antidepressants (SSRIs, SNRIs such as venlafaxine), buspirone (particularly for chronic anxiety), and sometimes low-dose tricyclics (e.g., amitriptyline) if other options fail. Risperidone is an atypical antipsychotic generally reserved for psychotic disorders or severe refractory states; it is not a standard therapy for routine GAD. Hence, risperidone is the exception.

587. (b) Chronic kidney failure
Chronic kidney failure often leads to persistently elevated cardiac troponin levels even without an acute myocardial infarction. Decreased clearance and low-level cardiac injury can explain this rise. In muscular dystrophy, acute liver failure, or epilepsy, cardiac troponin is not characteristically elevated unless there is concurrent myocardial injury.

588. (b) 2, 3 and 4
In COPD, air trapping and loss of elastic recoil lead to hyperinflation of the lungs: Functional residual capacity (FRC) and residual volume (RV) both increase, and so does the RV/TLC ratio. The total lung capacity (TLC) may be normal or increased, but not typically reduced. Hence, statements 2, 3, and 4 are correct.

NODIA

589. (d) 1, 2, 3 and 4
Acute respiratory distress syndrome (ARDS) typically develops secondary to severe systemic or pulmonary insults such as sepsis (including Gram-negative), aspiration of gastric contents, acute pancreatitis, or severe trauma/burns. Myocarditis itself does not typically cause ARDS, although severe cardiac failure can lead to pulmonary edema, which is a separate process.

590. (b) Acute LVF
Bilateral rhonchi (sometimes cardiac asthma) plus crackles (crepitations) and an S3 gallop point strongly to acute left ventricular failure with pulmonary edema. The patient's sudden dyspnea, high blood pressure, and restlessness further support acute cardiac decompensation rather than an obstructive pulmonary disease (COPD or asthma). Pneumothorax typically presents with diminished breath sounds on one side and no S3 gallop.

591. (a) 1, 2 and 3
Small cell lung cancer is notorious for paraneoplastic syndromes: ectopic ACTH secretion (causing Cushing's), Lambert-Eaton myasthenic syndrome, and SIADH. Addison's disease (primary adrenal insufficiency) is not commonly linked to small cell lung cancer. Hence 1, 2, and 3 are correct.

592. (a) Fatty liver
Liver dullness on percussion can disappear if air gets interposed or if the liver is greatly shrunken. Emphysema (hyperinflated lungs) can lower or obscure liver dullness. A perforated viscus can introduce free air under the diaphragm, also obliterating dullness. Fulminant hepatic failure may lead to hepatic shrinkage and uncertain percussion findings. Fatty liver, however, typically enlarges or maintains the liver's normal span and does not obliterate dullness, making it the exception.

593. (d) 1, 3 and 4
Helicobacter pylori is a gram-negative organism (1) that colonizes the gastric mucosa and is known for producing urease (3). It causes chronic gastritis (4), which can progress to peptic ulcer disease. However, H. pylori typically remains superficial rather than truly invading the gastric epithelium; hence statement 2 is inaccurate.

594. (d) 1, 2, 3 and 4
Multiple factors can trigger acute pancreatitis. Corticosteroids (1) have been implicated in some cases. Hyper triglyceride mi a (2) is a well-known cause (often TG >1000 mg/dL). Severe hypercalcemia (3) can activate pancreatic enzymes prematurely. Azathioprine (4) is also recognized to cause drug-induced pancreatitis. Hence, all four are possible precipitants.

595. (b) Carcinoma oesophagus
Progressive dysphagia to solids together with significant weight loss in an older patient is highly suggestive of esophageal malignancy, most frequently squamous cell or adenocarcinoma. Such patients often report that initially only solid foods cause difficulty, which gradually worsens until even liquids may become problematic. Benign strictures typically have a longer history, and reflux esophagitis or neurogenic causes follow different clinical patterns. The rapid onset (3 months) and prominent weight loss point strongly toward a malignant process.

596. (b) Duodenal ulcer invariably changes into malignant
Helicobacter pylori eradication is a cornerstone of peptic ulcer management (a). Persistent or complicated ulcers may warrant surgical intervention (c). Zollinger-Ellison syndrome (gastrinoma) is linked to severe, often refractory ulcers (d). However, duodenal ulcers rarely become malignant (in contrast to some gastric ulcers which can be malignant). Hence, the statement that a duodenal ulcer invariably changes into malignant disease is false.

597. (a) Oat cell carcinoma of bronchus
Small cell (oat cell) carcinoma of the lung is well known for producing ectopic ADH (antidiuretic hormone), which can lead to the syndrome of inappropriate ADH secretion (SIADH). This causes water retention, hyponatremia, and can manifest as water intoxication. Hepatopancreas, testicular tumors, or rhabdomyosarcoma are far less commonly associated with SIADH.

598. (c) Stage III disease is confined to one side of the diaphragm
Hodgkin's lymphoma typically presents with painless lymphadenopathy (a). A cyclical fever pattern (Pel-Ebstein fever) can be a classic clinical feature (b). Reed-Sternberg cells, large binucleate cells, are pathognomonic for Hodgkin's (d). Stage III disease indicates lymph node involvement on both sides of the diaphragm. Hence, stating it is confined to one side is incorrect for Stage III.

599. (a) Heparin induced thrombocytopenia
Heparin-induced thrombocytopenia (HIT) paradoxically increases the risk of thrombosis, rather than bleeding, despite a drop in platelet count. Dengue fever can cause severe thrombocytopenia and bleeding, immune thrombocytopenic purpura (ITP) obviously leads to bleeding because of low platelets, and aspirin impairs platelet function, increasing bleeding tendency. Therefore, HIT is the least likely among these to present as a straightforward cause of bleeding.

600. (c) Chronic bronchitis
Cyanosis with clubbing typically occurs in congenital cyanotic heart diseases (like Eisenmenger syndrome), suppurative lung

Click Here to Buy book on Amazon

of an MI. It has different etiologic mechanisms (e.g., uncontrolled hypertension, connective tissue disorders).

617. (d) 1, 2 and 3
The Philadelphia chromosome (t(9;22), BCR-ABL fusion) can be detected using standard cytogenetics (karyotyping) to visualize the translocation, by FISH (fluorescence in situ hybridization) to detect the fusion signals, or by PCR to amplify and demonstrate the specific BCR-ABL gene fusion product. Hence, all three techniques—FISH, PCR, and cytogenetics—can identify this hallmark of chronic myelogenous leukemia (CML).

618. (a) Absence of gastrointestinal symptoms rules out celiac disease
Celiac disease can present not only with GI manifestations (like diarrhea, malabsorption) but also with extra-intestinal features (iron deficiency anemia, osteopenia, dermatitis herpetiformis). Many patients have few or no classic GI symptoms, so their disease is missed if one assumes GI complaints must be present. A small bowel biopsy showing increased intraepithelial lymphocytes is diagnostic. In certain refractory cases, steroids may help induce remission.

619. (a) A1 B4 C2 D3
Sodium valproate commonly raises liver enzymes (A→1). Carbamazepine often causes sedation or drowsiness (B→4). Phenytoin is well-known for dose-related hirsutism and gum hypertrophy (C→2). Phenobarbitone frequently causes sedation but can also paradoxically induce hyperactivity in some children (D→3). Thus, (a) correctly pairs A→1, B→4, C→2, D→3.

620. (b) Intravenous immunoglobulins
Guillain-Barré syndrome (GBS) is an acute inflammatory demyelinating polyneuropathy often presenting with ascending weakness and areflexia. The mainstay of treatment is high-dose intravenous immunoglobulins (IVIG), which shortens recovery time by modulating the immune attack on peripheral nerves. Plasmapheresis is also an alternative therapy. Corticosteroids have not shown consistent benefit in GBS, cyclosporine is not standard, and ACTH is not indicated. Therefore, IVIG is the first-line treatment.

NODIA

621. (d) The treatment includes intravenous diltiazem
In right ventricular myocardial infarction, maintaining adequate preload is crucial because the right ventricle depends more on venous return. Agents such as intravenous diltiazem reduce heart rate and can lower blood pressure, thereby decreasing preload, which can worsen hemodynamics in right ventricular infarction. By contrast, fluid administration often helps support the failing right ventricle. The other statements accurately reflect that right ventricular infarcts commonly accompany inferior wall MIs, show right precordial ST elevations, and may have a serious prognosis.

622. (c) Systolic murmur at apex
Atrial myxomas often present with constitutional symptoms (fever, weight loss) and can produce embolic phenomena (including subungual splinter hemorrhages). On auscultation, a classic tumour plop (a diastolic sound) is more commonly heard when the myxoma prolapses across the mitral valve. While an obstructive murmur can occasionally occur, it is typically diastolic rather than systolic at the apex. Hence, a systolic murmur at apex is least characteristic of an atrial myxoma and is therefore the except statement.

623. (b) A-2 B-3 C-4 D-1
A wide, fixed splitting of the second heart sound (A) is a classic finding in atrial septal defect (2). A continuous machinery murmur (B) is pathognomonic of patent ductus arteriosus (3). Muffled heart sounds (C) point toward pericardial effusion (4). A wide and variable split in the second heart sound (D) is typically associated with conditions like pulmonary hypertension (1), where altered right-sided pressures affect pulmonary valve closure. Matching these auscultatory findings to their respective conditions gives the correct code of 2, 3, 4, 1:

(which binds free hemoglobin) becomes depleted, thus levels fall rather than rise.

609. (a) 1 only
Hypertrophic cardiomyopathy is known for causing dynamic outflow obstruction and lethal arrhythmias, often leading to sudden cardiac death in otherwise apparently healthy individuals (particularly young athletes). Dressler's syndrome, however, is a late post-infarction pericarditis that occurs weeks to months after the myocardial infarction, not an early complication.

610. (d) Frontal cortex
Chronic hypertension predisposes to Charcot-Bouchard microaneurysms in small penetrating arteries, leading to intracerebral hemorrhages typically in the basal ganglia (particularly the putamen), thalamus, pons, or cerebellum. A primary intracerebral hemorrhage solely in the frontal cortex is less characteristic of hypertensive hemorrhage.

611. (d) Sulfonylureas
Among standard oral hypoglycemic agents, sulfonylureas (e.g., glimepiride, glibenclamide) are notorious for causing hypoglycemia because they increase insulin release irrespective of plasma glucose levels. If meals are delayed or if an excessive dose is taken, blood sugar can drop sharply. In contrast, metformin, α-glucosidase inhibitors (acarbose), and DPP-4 inhibitors (sitagliptin) rarely cause true hypoglycemia when used alone because their primary mechanisms involve reducing hepatic glucose output or delaying carbohydrate digestion.

612. (a) 1 and 3 only
Gilbert's syndrome is an autosomal dominant disorder of mildly reduced activity of the bilirubin-conjugating enzyme (UGT1A1). It leads to mild unconjugated hyperbilirubinemia, often precipitated by fasting, stress, or illness. Despite lifelong mild jaundice, it does not become very severe over time, and most patients remain asymptomatic apart from occasional mild icterus. Hence statements 1 (autosomal dominant inheritance) and 3 (fasting precipitates higher bilirubin) are correct, while severe jaundice is not typical.

613. (b) Carcinoid syndrome
Secondary hypertension arises from identifiable pathophysiologic causes such as Conn's syndrome (primary hyperaldosteronism), Cushing's syndrome (excess cortisol), and pheochromocytoma (excess catecholamines). These all elevate blood pressure. Carcinoid syndrome (flushing, diarrhea, bronchospasm) can affect the heart (especially right-sided valves) but is not a classic cause of persistently high blood pressure. Hence it is the exception among these listed conditions.

614. (c) Pulmonary hypertension
Tetralogy of Fallot classically includes: (1) Ventricular septal defect (VSD), (2) Overriding aorta (straddling the VSD), (3) Right ventricular hypertrophy, and (4) Pulmonary stenosis (which reduces pulmonary blood flow). Although children with TOF may eventually develop secondary changes, true pulmonary arterial hypertension is not a defining feature; instead, the obstruction lies at or below the pulmonary valve. Thus, (c) is the incorrect association.

615. (b) It does not occur in a physically fit person
High altitude pulmonary edema (HAPE) can happen in anyone who ascends rapidly to high altitude, even physically fit individuals. It arises due to elevated pulmonary artery pressures and alveolar-capillary membrane stress, causing a non-cardiogenic pulmonary edema. Physical exertion, cold, and hypoxia can aggravate it. Management includes prompt descent or use of a portable hyperbaric chamber to reduce altitude-related hypoxia. Thus, the notion that physically fit persons are spared (option b) is incorrect.

616. (c) Dissection of aorta
Myocardial infarction can trigger various complications: arrhythmias (e.g., ventricular fibrillation), mechanical disruptions (ventricular septal rupture, papillary muscle rupture), and mural thrombosis leading to systemic embolism. Aortic dissection, however, involves a tearing of the aortic wall layers and is not a typical sequel

Downloaded from www.pdf.tube

566. (d) Obliteration of the 'x' descent and prominent 'CV' wave

In tricuspid regurgitation, systolic backflow from the right ventricle into the right atrium causes a prominent v or CV wave and obliterates the normal x descent in the jugular venous pulse. Prominent a waves occur with resistant right ventricular filling (e.g., pulmonary hypertension), while cannon waves are seen with AV dissociation. Exaggerated x and y descents are typical in constrictive pericarditis. Thus, the hallmark of tricuspid insufficiency is a prominent CV wave with loss of the x descent.

567. (a) A4 B1 C2 D3

Osler's nodes—painful nodules on fingers/toes—are classically linked with subacute bacterial endocarditis (4). Differential cyanosis (lower limbs more cyanosed than upper limbs) occurs when a patent ductus arteriosus reverses (Eisenmenger's) (1). A bisferiens pulse (double-peaked pulse) is associated with combined aortic stenosis and regurgitation (2). Graham Steell murmur is a high-pitched early diastolic murmur best heard along the left sternal border in pulmonary hypertension (3). Hence, the correct matches are A4, B1, C2, D3.

568. (a) Infective endocarditis

Acute aortic regurgitation most often stems from sudden damage to the aortic valve leaflets or supporting structures. Infective endocarditis can rapidly destroy valves, causing abrupt regurgitation and dramatic hemodynamic compromise. Ankylosing spondylitis, Marfan's syndrome, and rheumatoid arthritis more typically produce a chronic process that gradually affects the valve over time. Thus, among the listed options, infective endocarditis is the prime cause of acute aortic regurgitation.

569. (d) Dressler's syndrome

Early complications of myocardial infarction typically occur within days of the event. These include papillary muscle dysfunction (leading to mitral regurgitation), ventricular septal rupture, and free wall rupture. Dressler's syndrome, however, is a late autoimmune-mediated pericarditis, manifesting weeks to months following the infarction. As such, it is not an early complication.

570. (c) Fibrinogen

Nephrotic syndrome results in heavy proteinuria and loss of many low molecular weight proteins (e.g., albumin, transferrin, ceruloplasmin). Fibrinogen is a large protein and an acute-phase reactant; its hepatic synthesis often increases during inflammation or stress. As a result, fibrinogen levels are typically maintained or even elevated and do not significantly drop in nephrotic syndrome, unlike albumin or transferrin.

571. (a) Renal tubular acidosis

High anion-gap metabolic acidosis arises when unmeasured anions (e.g., ketoacids, lactate, or retained phosphates/sulfates in renal failure) accumulate in the blood. Acute and chronic renal failure and diabetic ketoacidosis all produce an elevated anion gap. Renal tubular acidosis typically causes a normal (hyperchloremia) anion-gap acidosis because the main problem is tubular defect in acid handling rather than an excess of new organic acids.

NODIA

572. (d) Hepato-renal syndrome

Hepatorenal syndrome is characterized by severe vasoconstriction of the renal arteries in advanced liver disease. Patients present with a normal urinary sediment, very low urinary sodium (<10 mEq/L), and progressive renal failure despite no intrinsic kidney damage. Interstitial nephritis, acute tubular necrosis, and glomerulonephritis usually present with urinary abnormalities (casts, higher urinary sodium). The extremely low urinary sodium (5 mEq/L) and absence of active sediment strongly suggest hepatorenal syndrome.

573. (d) 1, 3 and 4

Parkinsonism commonly presents with bradykinesia, rigidity, and a loss of associated movements, such as failing to swing the arms while walking. Cogwheel rigidity and festinant (shuffling, hurried) gait are also hallmarks. Nystagmus is not a typical manifestation of Parkinson's disease. Hence, items 1 (failure

624. (d) A-3 B-4 C-2 D-1
Amiodarone (A) is commonly used to treat ventricular tachycardia (3). Adenosine (B) terminates paroxysmal supraventricular tachycardia (4) by transiently blocking AV nodal conduction. Digoxin (C) helps in rate control for atrial fibrillation (2) by decreasing AV nodal conduction. Atropine (D) counteracts excessive vagal tone in certain types of heart block, including advanced A-V block (1). Thus, the best match is A→3, B→4, C→2, D→1.

625. (b) Primary biliary cirrhosis
Pulmonary fibrosis is strongly linked to several occupational and systemic disorders: Coal miners' lung (pneumoconiosis) and asbestosis (from asbestos exposure) are well-known causes. Ankylosing spondylitis can also involve the upper lobes, sometimes leading to fibrocavitary changes. Primary biliary cirrhosis is primarily an autoimmune liver disease and is not typically associated with progressive fibrotic changes in the lung. Therefore, among the listed options, primary biliary cirrhosis is least likely to show a direct association with pulmonary fibrosis.

626. (d) 1, 2 and 3
All three listed findings indicate severe acute asthma. A pulse rate above 110/min (1) reflects significant respiratory distress. Pulsus paradoxus (2)—an exaggerated fall in systolic blood pressure during inspiration—is a hallmark of severe airway obstruction. Inability to speak in full sentences (3) suggests markedly reduced airway flow and significant respiratory compromise. Hence all (1), (2), and (3) are features of severity in the immediate assessment of acute severe asthma.

627. (a) Sarcoidosis
Cavitation in the lungs commonly occurs with infections like tuberculosis (b) and histoplasmosis (d), as well as certain malignancies such as squamous cell carcinoma of the lung (c). Sarcoidosis (a) usually presents with non-caseating granulomas and bilateral hilar lymphadenopathy rather than cavitary lesions; while rare cavitation can sometimes occur, it is not a characteristic feature. Thus, Sarcoidosis is the best choice for except among the listed causes of cavitation.

628. (b) Pre-systolic accentuation
Pre-systolic accentuation of the diastolic murmur in mitral stenosis depends on effective atrial contraction pushing blood through the stenosed mitral valve just before systole. In atrial fibrillation, the atria do not contract effectively (they fibrillate), so this accentuation does not occur. The mid-diastolic murmur, variable first heart sound, and loud P_2 (due to pulmonary hypertension) can still be present, but the specific pre-systolic boost is lost.

629. (a) pCO_2 38 mmHg, and pO_2 50 mmHg
Type 2 respiratory failure is characterized by hypercapnia (elevated arterial pCO_2 >45 mmHg) and hypoxemia (low pO_2). A pCO_2 of 38 mmHg with a pO_2 of 50 mmHg (option a) indicates hypoxemia without hypercapnia, which matches type 1 respiratory failure. Papilloedema and asterixis can occur in hypercapnic states due to raised intracranial pressure or altered sensorium. A pCO_2 of 68 mmHg with a pO_2 of 50 mmHg clearly represents type 2 respiratory failure.

630. (b) Calcium channel blocker
Mainstays of treatment for dilated cardiomyopathy and systolic heart failure include beta-blockers (to reduce heart rate and control remodeling), ACE inhibitors (afterload reduction), and diuretics/aldosterone antagonists (like spironolactone) to manage volume overload. Non-dihydropyridine calcium channel blockers (e.g., verapamil, diltiazem) generally have negative inotropic effects and may worsen systolic dysfunction. They are therefore not routinely used in dilated cardiomyopathy unless there is a specific indication like uncontrollable supraventricular arrhythmias.

631. (d) 1, 2 and 4
Zollinger Ellison syndrome (ZES) involves a gastrin-secreting tumor (gastrinoma) of the pancreas or duodenum, leading to unregulated gastrin release (2), aggressive peptic ulcer disease (1), and frequent diarrhea (4) because

Click Here to Buy book on Amazon

peptic ulcers or pancreatitis, and hypertension is also associated. Milk-alkali syndrome and hypervitaminosis D can similarly elevate calcium, but do not as typically present with this classic triad. Tubulointerstitial disease has different pathophysiology and clinical profile.

646. (d) A-4, B-2, C-1, D-3

1. A. Hyperchylomicronemia (Type I) typically shows very high triglycerides (often >1000 mg/dL).
2. B. Hyperbetalipoproteinemia (Type IIa) presents with LDL elevation and is known for tendon xanthomas.
3. C. Type III hyperpigmentation (dysbetalipoproteinemia) often features palmar crease (palmar/plantar) xanthomas.
4. D. Familial LPL deficiency leads to severe chylomicron accumulation with classic eruptive xanthomas (often on buttocks/ extensor surfaces).

Hence, the code that best fits is A→4, B→2, C→1, D→3.

647. (b) Hepatorenal syndrome

Acute or chronic interstitial nephritis can arise from infections (e.g., certain viral, bacterial, or parasitic causes), infiltrative disorders like lymphoma, or granulomatous conditions such as sarcoidosis. These can directly involve the renal interstitium, triggering inflammatory or granulomatous changes. In contrast, hepatorenal syndrome occurs with advanced liver disease and portal hypertension; it is characterized by marked renal vasoconstriction and reduced GFR—but does not primarily reflect interstitial inflammatory changes in the kidneys.

648. (b) Type II cytotoxic

Goodpasture syndrome involves autoantibodies directed against the glomerular and alveolar basement membrane (anti-GBM antibodies). This is a classic example of type II hypersensitivity, in which antibodies bind to antigens on cell surfaces or extracellular matrix, directly causing tissue injury. Type I involves IgE-mediated atopy, type III involves immune complex deposition, and type IV is T-cell–mediated. In Goodpasture's, linear deposition of IgG on basement membranes confirms the type II mechanism.

649. (c) Distal myopathy

Cushing's syndrome, arising from excess glucocorticoids, characteristically presents with truncal obesity, buffalo hump, and moon facies. It also contributes to bone demineralization (osteoporosis) and hyperglycemia or glucose intolerance. Muscle weakness in Cushing's predominantly involves the proximal muscle groups (e.g., thighs, hips, shoulders). Distal myopathy is not typical; patients often complain of difficulty climbing stairs or rising from a chair—classic signs of proximal myopathy—rather than distal muscle weakness.

650. (c) 1, 2 and 4

PUVA (psoralen plus UVA) photochemotherapy is frequently employed in plaque psoriasis (1) to reduce excessive keratinocyte proliferation and inflammation. It is also used in severe atopic dermatitis (2) where it can help control intense inflammation and pruritus. Additionally, PUVA is a recognized option for vitiligo (4) to stimulate repigmentation. By contrast, leprosy (3) is managed primarily with multidrug antimicrobial regimens and does not rely on PUVA. Hence, 1, 2, and 4 are correct.

651. (c) Molluscum contagiosum

Molluscum contagiosum—caused by a poxvirus—presents with small, smooth, dome-shaped papules that often have a central umbilication (pitting). It is frequently seen in children but can occur at any age, including immunocompromised adults. Chicken pox (varicella) features pruritic vesicles in different stages of evolution, herpes zoster (shingles) involves painful dermatomal vesicular eruptions, and verruca vulgaris (common warts) typically show a rough, hyperkeratotic surface rather than a pearly papule with central indentation.

652. (d) 1, 2 and 3

Thought insertion (believing others are placing thoughts in one's mind) is a classic first-rank symptom of schizophrenia. Delusions of guilt or persecutory beliefs—such as feeling punished

NODIA

low active vitamin D levels, are part of renal osteodystrophy. However, hyperthyroidism (c) is not a typical direct consequence of chronic renal failure. Patients with end-stage kidney disease often have hypothyroid or normal thyroid function tests, but overt hyperthyroidism is not a standard feature.

639. (c) Migraine
Dazzling, enlarging visual phenomena that last minutes and temporarily obstruct vision are classical of migraine aura (often termed scintillating scotomas or fortification spectra). These aura symptoms typically precede or accompany a migraine headache and can resolve spontaneously. By contrast, acute angle-closure glaucoma causes severe ocular pain and blurred vision, retinal detachment presents with sudden loss of vision (curtain coming down), and intumescent cataract involves lens swelling and progressive blurred vision rather than transient flashing phenomena.

640. (c) A-2 B-1 C-4 D-3
Macrocytosis can occur in hypothyroidism (A→2), whereas microcytosis typically points to iron deficiency (B→1). Hemolytic anemia can be induced by certain drugs such as alpha methyldopa (C→4) through autoimmune mechanisms. Finally, megaloblastic anemia is classically linked to vitamin B_{12} or folate deficiency (D→3). Thus, the correct mapping is A→2, B→1, C→4, and D→3.

641. (d) Penicillin
G6PD deficiency predisposes to oxidative stress hemolysis. Known triggers include certain antimalarials (e.g., primaquine), sulfonamides, some analgesics (e.g., phenacetin), and others that generate oxidative metabolites within red blood cells. Penicillin is not classically implicated in causing hemolysis in G6PD-deficient individuals. By contrast, probenecid—though less commonly discussed than primaquine or sulfa drugs—can exacerbate oxidative stress in susceptible RBCs. Hence, penicillin is the safest among these listed choices.

642. (c) A-4 B-1 C-2 D-3

1. A. Microcytic, hypochromic RBCs are classic for iron-deficiency anaemia (4).
2. B. Macrocytic RBCs (though typically macro-oval rather than hypochromic) align best with vitamin B_{12} deficiency anaemia (1).
3. C. A large number of erythroblasts across stages are seen in thalassemia major (2) due to increased ineffective erythropoiesis.
4. D. A low reticulocyte count commonly characterizes aplastic anaemia (3), reflecting poor marrow output. Thus, A→4, B→1, C→2, D→3 is correct.

643. (d) Haemolysis from G6PD enzyme deficiency
Pancytopenia means simultaneous reduction of red cells, white cells, and platelets. In hypersplenism, the spleen sequesters or accelerates the removal of multiple cell lines, causing pancytopenia. In aplastic anaemia, marrow failure reduces all cell lines. Cancer infiltrating bone marrow also compromises the production of RBCs, WBCs, and platelets. However, G6PD deficiency selectively renders RBCs vulnerable to oxidative stress; this primarily causes hemolytic anemia without typically affecting white cells or platelets. Hence, it does not cause pancytopenia.

644. (b) Beta blocker
Growth hormone commonly causes fluid retention and soft-tissue swelling. Anabolic steroids often lead to sodium and water retention, increasing edema risk. Calcium-channel blockers, especially dihydropyridines (e.g., amlodipine), can produce peripheral edema via vasodilatation and altered fluid dynamics in the microcirculation. By contrast, beta-blockers are not classic causes of fluid retention or peripheral edema (though they might mask certain signs of hypoglycemia or affect lipid profiles). Therefore, among the listed options, beta-blockers are least likely to cause edema.

645. (c) Primary hyperparathyroidism
Primary hyperparathyroidism leads to excessive parathyroid hormone (PTH) secretion, causing hypercalcemia. Common clinical manifestations include stones, bones, abdominal groans, and psychic moans—where stones refers to renal calculi, abdominal groans can manifest as

NODIA

of the high acid load. It is not a beta islet cell tumor (3); beta cells secrete insulin, whereas ZES involves enteroendocrine G-cells. Up to half of patients with ZES experience diarrhea due to excess acid overwhelming the intestine's absorptive capacity.

632. (a) Leptospirosis
Systemic lupus erythematosus (SLE) frequently presents with a butterfly malar rash and discoid lesions. Hepatitis B can lead to serum sickness–like skin manifestations. Infectious mononucleosis is known to cause maculopapular rashes, particularly after certain antibiotics (e.g., ampicillin). Leptospirosis, however, does not typically begin with or feature a characteristic primary skin lesion; while nonspecific rashes can occur in some cases, they are not a classic or defining primary dermatologic sign of the disease.

633. (d) Eosinophilia
Hypersensitivity pneumonitis (also called extrinsic allergic alveolitis) is an immune-mediated inflammatory condition of the lung parenchyma, often triggered by inhaled organic dusts. While clinical features can include elevated inflammatory markers (e.g., CRP), normal or near-normal chest X-rays (especially early on), and confirmatory changes on lung biopsy, peripheral eosinophilia is not typical. Unlike eosinophilic pneumonias, hypersensitivity pneumonitis is usually dominated by lymphocytic and granulomatous inflammation rather than significant eosinophil involvement.

634. (b) 2, 3 and 4 only
Duodenal ulcers most commonly occur in the first part (the duodenal bulb), not the second part, making statement 1 incorrect. H. pylori infection and NSAID use (2) indeed account for most duodenal ulcers. True malignant duodenal ulcers (3) are very rare compared to gastric ulcers. Finally, targeted H. pylori eradication therapy (4) has dramatically lowered ulcer recurrence rates. Hence, statements 2, 3, and 4 are correct, while statement 1 is not.

635. (b) Argentaffin cells of small intestine
Carcinoid tumors most often originate from enterochromaffin (argentaffin or Kulchitsky) cells in the gastrointestinal tract, especially in the appendix and small intestine. These neuroendocrine cells can secrete serotonin and various vasoactive substances, leading to the classic carcinoid syndrome if metastatic spread allows excess hormones into the systemic circulation. G cells in the pancreas typically secrete gastrin (Zollinger-Ellison syndrome), and pancreatic endocrine tumors (insulinoma, glucagonoma) are distinct entities.

636. (b) Hypoadrenalism
Polyuria is abnormally high urine output. Chronic renal failure can lead to a reduced concentrating ability and a polyuric phase. Hypercalcemia causes nephrogenic diabetes insipidus–like effects, also resulting in polyuria. Lithium therapy impairs the kidney's responsiveness to ADH, promoting nephrogenic diabetes insipidus. However, hypoadrenalism (Addison's disease) typically features hyponatremia, volume depletion, and not a sustained polyuric state. While electrolyte imbalances do occur in adrenal insufficiency, classic large-volume polyuria is far more characteristic of the other three conditions.

637. (d) Renal cell carcinoma is a frequent association
Adult polycystic kidney disease (APKD) is an autosomal dominant disorder (often with high but not always strict 100% clinical penetrance). It is well known for extrarenal manifestations such as hepatic cysts and berry aneurysms, which increase the risk of subarachnoid hemorrhage. Although there may be a slightly increased risk of renal tumors, renal cell carcinoma is not considered a frequent or hallmark association compared to cystic growth and intracranial aneurysms. Thus, (d) is the statement that is not correct.

638. (c) Hyperthyroidism
Chronic renal failure leads to phosphate retention, reduced $1,25(OH)_2$ vitamin D_3 production, and secondary hyperparathyroidism (a) to compensate for low calcium. Bone disorders, including osteomalacia (b) from

Downloaded from www.pdf.tube

for wrongdoing—may occur in schizophrenic patients. Additionally, some individuals with schizophrenia can present in a catatonic state, characterized by motoric immobility, mutism, or peculiar posturing. Thus, all three listed possibilities (1, 2, and 3) can be present in schizophrenia.

653. (d) To prevent depression in unipolar disorders
Lithium is a mood stabilizer used both to treat acute mania (a) and to help prevent recurrent manic episodes (b). In bipolar disorder, it also reduces the risk of depressive relapses (c). However, for unipolar (major) depression prophylaxis, lithium is not the standard sole agent—common long-term therapies include antidepressants and sometimes psychotherapy. Lithium's prophylactic role primarily targets the manic and depressive phases of bipolar illness.

654. (b) Irritable bowel syndrome
Protein-losing enteropathy involves excessive loss of plasma proteins through the gut. It can happen in inflammatory bowel conditions like ulcerative colitis (a), where mucosal damage leads to leakage of proteins, and in celiac disease (c) due to severe mucosal atrophy and malabsorption. Intestinal lymphoma (d) can erode or infiltrate the intestinal wall, also causing protein loss. By contrast, irritable bowel syndrome (b) is a functional disorder without significant mucosal inflammation or ulceration; it does not typically cause protein loss.

655. (a) Lateral gaze palsy
Foville syndrome typically stems from a lesion in the dorsal pons affecting the abducens nucleus or paramedian pontine reticular formation (PPRF), along with the facial nerve fascicle. This leads to an ipsilateral horizontal (lateral) gaze palsy—i.e., inability to look toward the side of the lesion—combined with ipsilateral facial weakness. A pure sixth nerve palsy (choice b) affects only one eye's abduction, whereas lateral gaze palsy implies a conjugate horizontal gaze defect. Hence, (a) best fits Foville syndrome.

656. (d) Livedo reticularis
Behçet's syndrome is characterized by recurrent, painful oral and genital ulcers, uveitis, and frequent skin manifestations such as erythema nodosum–like lesions. Polyarthritis can also occur. Livedo reticularis, a netlike purplish skin mottling often associated with conditions like antiphospholipid syndrome or Sneddon's syndrome, is not a classic feature of Behçet's. Hence (d) is the except feature among otherwise characteristic findings of Behçet's.

NODIA

657. (a) A-4, B-1, C-2, D-3
Phenytoin (A) often causes cerebellar/vestibular toxicity (ataxia, nystagmus), i.e., cerebellar dysfunction (4).

1. Para-aminosalicylic acid (B) can lead to goiter and hypothyroidism (1).
2. Rifampicin (C) is known for hepatotoxic potential (2).
3. Streptomycin (D), an aminoglycoside, may damage the eighth cranial nerve, causing ototoxicity (3).

Thus, A→4, B→1, C→2, D→3 fits best.

658. (d) A-4, B-3, C-2, D-1
Pemphigus vulgaris is classically associated with a positive Nikolsky sign (4). Psoriasis demonstrates Koebner's phenomenon (3), in which new lesions appear on sites of trauma. Turner syndrome often manifests shortened metacarpals or overall brachydactyly (2). Primary hyperparathyroidism can produce acro-osteolysis (1), a resorption of distal phalanges linked to excessive parathyroid hormone. Thus, A→4, B→3, C→2, D→1 matches each disease to its hallmark clinical feature.

659. (d) Wegner's granulomatosis
Granulomatosis with polyangiitis (Wegener's) frequently affects the upper and lower respiratory tracts and kidneys. Classic findings include chronic sinus or nasal symptoms, pulmonary nodules or cavities, and renal involvement characterized by focal necrotizing (crescentic) glomerulonephritis. Hemoptysis is common when lung lesions erode into airways. Aspergillosis rarely causes such a triad, polyarteritis nodosa typically spares the lungs, and metastatic renal carcinoma might produce hematuria plus lung lesions but lacks the sinus involvement and characteristic glomerulonephritis.

Gene silencing (e.g., RNA interference) frequently involves small interfering RNA (siRNA), microRNA (miRNA), or even double-stranded RNA as triggers. These molecules guide the cellular machinery (e.g., RISC complex) to degrade or block the target mRNA, thereby silencing gene expression. Ribosomal RNA (rRNA), on the other hand, is a structural and functional part of the ribosome—responsible for protein synthesis—rather than a direct mediator of gene silencing. Thus, rRNA is not typically part of RNA interference.

676. (d) Syndrome of inappropriate ADH
Small cell lung carcinoma is well known for producing ectopic hormones, most notably antidiuretic hormone (ADH). The excessive ADH secretion leads to water retention and dilutional hyponatremia, a condition described as the syndrome of inappropriate ADH secretion (SIADH). Among the given choices, this paraneoplastic phenomenon is the most common cause of symptomatic hyponatremia in patients with small cell lung cancer. Neither Fanconi syndrome, Cushing's syndrome, nor metabolic syndrome are typically linked to small cell lung cancer–associated hyponatremia.

677. (a) Jaundice becomes severe with time.
Gilbert's syndrome is a mild unconjugated hyperbilirubinemia typically exacerbated by stress factors such as fasting, illness, or strenuous exercise. It is inherited in an autosomal dominant pattern, and the liver architecture remains normal on histological examination. Jaundice in Gilbert's syndrome is generally mild and does not progressively worsen over time. Hence, the statement that jaundice becomes severe with time is incorrect, making option (a) the not-correct choice.

678. (b) Porphyria
Autonomic dysfunction can occur in several neurological and systemic conditions. Guillain-Barré syndrome frequently involves both motor and autonomic fibers. Diabetes is a well-known cause of autonomic neuropathy, often affecting cardiovascular and gastrointestinal regulation. Vitamin B12 deficiency can lead to peripheral neuropathy that sometimes includes autonomic components. In contrast, porphyria, although it can have many neurological manifestations (particularly acute intermittent porphyria), is a comparatively rare cause of outright autonomic dysfunction, making it the uncommon option among the listed choices.

679. (a) Hypersensitivity pneumonitis.
Peripheral eosinophilia is classically associated with certain parasitic infections (e.g., tropical eosinophilia), allergic conditions (e.g., allergic bronchopulmonary aspergillosis), and transient pulmonary infiltrates like Loeffler's syndrome. In contrast, hypersensitivity pneumonitis (also called extrinsic allergic alveolitis) is primarily mediated by immune complex and T-cell–driven inflammation, usually showing neutrophils, lymphocytes, and occasional granuloma formation rather than marked eosinophilia. Thus, option (a) is the one that does not characteristically feature peripheral eosinophilia.

680. (c) Involvement of PIP joints is more than DIP joints.
Psoriatic arthritis typically involves the distal interphalangeal (DIP) joints, often distinguishing it from rheumatoid arthritis, which primarily affects the proximal interphalangeal (PIP) joints. In most psoriatic arthritis patients, the characteristic pattern is asymmetric arthritis with prominent DIP joint involvement, and skin lesions (psoriasis) commonly precede joint symptoms. Cup-like or pencil-in-cup erosions on X-ray are also classically described. Hence, the statement that PIP involvement exceeds DIP involvement is not correct.

681. (d) 1 and 3
Rheumatic carditis involves all three layers of the heart—endocardium, myocardium, and pericardium—making it a pancarditis (statement 1). Mitral regurgitation is indeed the most common valvular manifestation in acute rheumatic fever (statement 3). However, the Carey–Coombs murmur is classically described as a mid-diastolic murmur (sometimes short) rather than a delayed systolic murmur, so statement 2 is incorrect. Accordingly, only statements 1 and 3 are correct.

Click Here to Buy book on Amazon

destroy insulin-producing cells, again causing hyperglycemia. Meanwhile, Conn's syndrome (primary hyperaldosteronism) does not typically cause diabetes, although it may slightly affect glucose metabolism. Therefore, 1 (thyrotoxicosis/phaeo/acromegaly), 2 (hemochromatosis), and 4 (pancreatic carcinoma) can produce secondary diabetes.

668. (a) von Recklinghausen's disease
Lisch nodules—pigmented iris hamartomas—are pathognomonic of neurofibromatosis type 1, also known as von Recklinghausen's disease. They typically appear as small, tan-colored dome-shaped elevations on the iris. Louis-Bar syndrome (ataxia-telangiectasia) and tuberous sclerosis have different ocular or CNS findings, while von Hippel-Lindau involves hemangioblastomas and pheochromocytomas.

669. (c) A-1, B-2, C-3, D-4
Thalassemia major (A) often shows increased serum iron, decreased TIBC, and increased ferritin (1) from transfusions and enhanced gut iron absorption.Iron deficiency anemia (B) is characterized by decreased serum iron, increased TIBC, and low ferritin (2).Nephrotic syndrome (C) leads to decreased serum iron, decreased TIBC (due to urinary loss of transferrin), and often increased ferritin (3).Acute iron poisoning (D) produces increased serum iron, normal TIBC, and normal ferritin initially (4).

670. (a) A-4, B-2, C-1, D-3
- Hypothyroidism (A): Elevated TSH with low T_3, T_4 (4).Cushing's syndrome (B): Often shows increased urinary 17-ketosteroids (2) reflecting excess cortisol and androgen metabolites. Pheochromocytoma (C): Marked by increased urinary excretion of catecholamines (1). Hypoparathyroidism (D): Leads to hypocalcemia and hyper phosphatemia (3).So A→4, B→2, C→1, D→3 is correct.

671. (b) Visible severe wasting
Kwashiorkor (protein malnutrition) typically presents with edema (especially in the feet), a moon face or rounded facies, and low serum albumin levels. Children often have a deceptively plump appearance due to fluid retention, rather than obvious severe muscle wasting. In contrast, marasmus (total calorie malnutrition) is marked by extreme wasting without edema. Thus, visible severe wasting is not a hallmark of Kwashiorkor, making option (b) the correct not feature.

672. (d) A-3, B-2, C-4, D-1
Flaky paint dermatitis on the lower limbs (A) is classically associated with zinc deficiency (3).
1. Goose-hump or toad skin lesions (B) refer to follicular hyperkeratosis seen in vitamin A deficiency (4).
2. Confabulation (C) commonly arises in Wernicke–Korsakoff syndrome, which is due to thiamine (vitamin B_1) deficiency (2).
3. Dementia (D) can feature prominently in pellagra caused by niacin (vitamin B_3) deficiency (1).

Hence, A→3, B→4, C→2, D→1.

NODIA

673. (c) Both 1 and 2
DNA microarrays—often called gene chips—enable the parallel measurement of expression levels for thousands of genes at once. By comparing samples (e.g., healthy vs. diseased tissue), researchers see which genes are up- or down-regulated in disease (statement 1). The technology indeed simultaneously visualizes the activity of a large number of genes on a small silicon or glass slide (statement 2). Thus, both statements accurately capture the capabilities of DNA microarray methods.

674. (a) Plant
Artemisinin is an anti-malarial compound extracted from the sweet wormwood plant (Artemisia annua). It is highly effective against the Plasmodium parasites causing malaria, especially when used in combination therapies (ACT—Artemisinin-based Combination Therapy). The drug's discovery earned Dr. Tu Youyou a share of the Nobel Prize in Physiology/Medicine. It is not derived from fungi, minerals (rocks), or algae; the correct biological source is this particular herb widely cultivated in parts of Asia.

675. (c) Ribosomal RNA

660. (c) Ebstein's anomaly
Ebstein's anomaly—malformation of the tricuspid valve and right ventricle—has a known association with Wolff-Parkinson-White (WPW) syndrome, a type of pre-excitation involving an accessory conduction pathway. ASD, bicuspid aortic valve, or patent ductus arteriosus are not typically linked to WPW. The hallmark of Ebstein's is displacement of the tricuspid valve leaflets into the right ventricle, with resultant derealization of a portion of the ventricle and frequent arrhythmic complications, including pre-excitation.

661. (a) Mitral stenosis
In mitral stenosis—commonly rheumatic in origin—the thickened anterior mitral leaflet in diastole can appear domed, described as a hockey-stick shape on echocardiography. This sign occurs because the restricted leaflet tip moves minimally while the body of the leaflet bulges into the ventricle. Mitral incompetence (regurgitation), aortic stenosis, or aortic regurgitation have different characteristic findings and do not exhibit this classic hockey-stick configuration.

662. (d) Hypo glycaemia
Chronic phenytoin therapy is associated with hirsutism, lymph node enlargement, gingival hyperplasia, peripheral neuropathy, and cerebellar dysfunction (ataxia). It can also cause megaloblastic anemia from folate interference. However, hypoglycemia is not a known typical adverse effect of phenytoin; the drug does not significantly stimulate insulin release or hamper gluconeogenesis in routine clinical doses. Therefore, among the listed choices, hypoglycemia is the least likely outcome.

663. (b) Prolactin
The hypothalamus exerts tonic inhibitory control on prolactin secretion via dopamine (often called prolactin-inhibiting factor). Ablation or destruction of the hypothalamus removes this inhibitory influence, causing serum prolactin levels to rise. Meanwhile, other pituitary hormones often drop from lost hypothalamic releasing hormones, but prolactin secretion is unique in being primarily under dopamine-mediated inhibition. Hence, after hypothalamic damage, prolactin tends to increase significantly.

664. (b) Immediately
Guidelines for type 2 diabetes recommend immediate retinal evaluation (or as soon as feasible) at diagnosis because many patients have undetected disease for years. Retinopathy may already be present even without visual complaints. In contrast, newly diagnosed type 1 diabetics generally get their first eye exam about five years after onset. Since this patient is an adult with new diagnosis of type 2 DM but with possible long-standing hyperglycemia, an immediate ophthalmic evaluation is indicated.

665. (b) Anti-nuclear antibodies
Celiac disease screening commonly involves serological tests against gliadin peptides, endomysium (EMA), and tissue trans glutaminase (tTG). Anti-endomysial and anti-tissue trans glutaminase antibodies are especially specific. Anti-nuclear antibodies (ANA), on the other hand, are typically associated with systemic autoimmune conditions (like lupus), not with celiac. Thus, ANA is not a standard diagnostic tool for celiac disease.

666. (d) Dressler's syndrome
Early complications following an MI include papillary muscle dysfunction or rupture leading to acute mitral regurgitation, ventricular septal defect from septal necrosis, and pericarditis (which can be early or occur days later as post-infarction pericarditis). Dressler's syndrome is a late immune-mediated pericarditis occurring typically weeks after an MI. Hence it is not classified among the immediate or early complications of acute myocardial infarction.

667. (b) 1, 2 and 4
Excess growth hormone (acromegaly), excessive catecholamines (pheochromocytoma), and hyperthyroidism can all antagonize insulin, leading to secondary diabetes mellitus. Hemochromatosis damages the pancreas (nicknamed bronze diabetes), also resulting in secondary diabetes. Pancreatic carcinoma can

Downloaded from www.pdf.tube

682. (a) 0.9 % NaCl
In diabetic ketoacidosis, the principal initial management step involves correcting the significant extracellular fluid deficit caused by osmotic diuresis. Normal saline (0.9% NaCl) is the standard fluid of choice to restore intravascular volume and stabilize hemodynamics. Hypertonic saline (3% NaCl) is generally reserved for severe, symptomatic hyponatremia, and 5% dextrose is introduced only after partial correction of hyperglycemia. Ringer's lactate may sometimes be used, but normal saline remains the most commonly recommended first-line fluid.

683. (c) Megaloblastic anaemia
A high reticulocyte count generally indicates a robust bone marrow response to anemia. Hemolytic anemias elevate the reticulocyte count due to ongoing RBC destruction and compensatory production. Acute blood loss also stimulates increased reticulocyte output (usually noticeable a few days after hemorrhage). Response to nutritional therapy in iron or vitamin deficiency likewise triggers a reticulocyte surge. In untreated megaloblastic anemia, however, ineffective erythropoiesis typically prevents a significant rise in reticulocytes, making it the exception here.

684. (b) Donor cells have normal survival.
An intracorpuscular defect (e.g., hereditary spherocytosis, thalassemia) is a problem inherent within the patient's own red blood cells. Because the defect resides in the RBC membrane or hemoglobin produced by that individual, transfusing normal donor RBCs (which lack that intrinsic abnormality) typically results in normal survival of the transfused cells. By contrast, with an extracorpuscular defect (e.g., autoimmune hemolysis), even normal donor RBCs would be destroyed.

685. (a) Osteoporosis
Serum alkaline phosphatase (ALP) typically reflects activity in bone (osteoblasts) and the biliary tract. It is raised in conditions involving high bone turnover, such as osteomalacia and Paget's disease, and in cholestatic liver disorders, where bile flow is obstructed. However, osteoporosis involves a reduction in bone mass without a marked increase in osteoblastic activity, so ALP generally remains normal in uncomplicated osteoporosis. Hence, option (a) is the condition where ALP does not usually elevate.

686. (a) Carbamazepine
Carbamazepine induces hepatic enzymes that metabolize oral contraceptive hormones, potentially leading to contraceptive failure. Women taking enzyme-inducing antiepileptic drugs (like carbamazepine, phenytoin, barbiturates) often require higher contraceptive doses or alternative methods to maintain efficacy. Sodium valproate, topiramate (at lower doses), and ethosuximide are less likely to reduce oral contraceptive levels. Therefore, carbamazepine is considered the least ideal among these options when contraceptive reliability is crucial.

687. (c) Starts with macronodular and later on changes to micronodular cirrhosis.
Alcoholic cirrhosis is classically described as a micronodular cirrhosis, particularly in its earlier stages, though nodules can become larger or mixed later. It is not typical for alcoholic cirrhosis to begin as macronodular and then shift to micronodular—if anything, the transition can go the other way around. Coexisting alcoholic hepatitis is indeed common, and concomitant infections (like HIV) worsen disease progression. Also, a significant percentage of alcoholic cirrhosis cases can remain asymptomatic (silent) until later.

NODIA

688. (b) Atrial fibrillation
Ventricular fibrillation is a fatal arrhythmia often causing sudden cardiac arrest. Massive acute myocardial infarction may progress to fatal pump failure or ventricular arrhythmias leading to arrest. A significant pulmonary embolism can also result in obstructive shock and cardiac standstill. Atrial fibrillation, while it can cause hemodynamic instability in vulnerable patients, generally does not outright cause immediate cardiac arrest; many patients live with chronic AF for years. Therefore, among these options,

AF is the least likely direct cause of cardiac arrest.

689. (d) Carbamazepine
Initial acute management of status epilepticus typically involves intravenous benzodiazepines (e.g. lorazepam, diazepam), followed by IV antiepileptics such as phenytoin/fosphenytoin or phenobarbital if seizures persist. Carbamazepine is commonly used orally for partial and generalized tonic–clonic seizures in a chronic setting, but it lacks a rapid IV formulation suitable for emergent cessation of ongoing seizures, making it less appropriate for acute status epilepticus management.

690. (d) Metabolic alkalosis
In acute renal failure, dialysis (renal replacement therapy) is indicated for life-threatening hyperkalemia, significant fluid overload with pulmonary edema risk, and serious uremic complications such as pericarditis or encephalopathy. Metabolic acidosis can also be an indication if severe. However, metabolic alkalosis is not typically managed with dialysis in ARF unless there are other simultaneous life-threatening features. Therefore, among the listed choices, metabolic alkalosis alone is not a routine indication for urgent renal replacement therapy.

691. (b) Cor pulmonale
Gastric erosions or peptic ulcer-like lesions often accompany conditions that involve stress, altered mucosal blood flow, or increased histamine release. Polycythemia rubra vera is linked to an increased incidence of peptic ulcers (possibly through elevated histamine levels), and liver cirrhosis can cause portal hypertensive gastropathy leading to erosions. Pernicious anemia involves chronic atrophic gastritis and can predispose to mucosal changes. Cor pulmonale (right-sided heart failure primarily from lung disease) is not typically associated with gastric erosions.

692. (c) Granulomatous hepatitis
Wegener's granulomatosis (now termed Granulomatosis with polyangiitis) is a necrotizing granulomatous vasculitis classically affecting the upper and lower respiratory tracts and the kidneys (glomerulonephritis). Ocular involvement such as scleritis or uveitis can occur. However, granulomatous hepatitis is not commonly described as a hallmark of this disease. The combination of sinus, lung, and renal lesions is most characteristic, along with a positive c-ANCA (anti-PR3) in many patients.

693. (c) Defect in common pathway
Prothrombin time (PT) assesses the extrinsic and common coagulation pathways (factors I (fibrinogen), II (prothrombin), V, X). Activated partial thromboplastin time (aPTT) checks the intrinsic and common pathways. When both PT and aPTT are prolonged, the defect is likely in the factors shared by both pathways (the common pathway). A purely extrinsic defect would prolong PT only; an intrinsic defect would prolong aPTT only; platelet dysfunction would not directly affect PT or aPTT.

694. (d) Pleural effusion is a common finding.
Sarcoidosis on chest X-ray classically shows bilateral hilar lymphadenopathy (often symmetrical) and a preference for upper lobe involvement. Eggshell calcification of lymph nodes, though not universal, is also a recognized feature. In contrast, pleural effusions are relatively uncommon in sarcoidosis and are not considered a typical radiographic finding. Hence, the statement that pleural effusion is a common finding is the incorrect one among the listed options.

695. (c) Indigestion
Major recognized complications of peptic ulcers include hemorrhage (upper GI bleeding), perforation (leading to peritonitis), and gastric outlet obstruction due to scarring or pyloric narrowing. While indigestion (dyspepsia) is a common symptom or presenting complaint of peptic ulcer disease, it is not classified as a complication; rather, it is part of the initial clinical presentation. The other three (bleeding, perforation, obstruction) are well-defined and potentially severe complications of untreated or inadequately managed peptic ulcer.

696. (a) A-4 B-1 C-2 D-3

Click Here to Buy book on Amazon

Osler's nodes (A) are painful nodules on fingers or toes, typically seen in subacute bacterial endocarditis (4). Differential cyanosis (B) occurs with patent ductus arteriosus (PDA) when shunt reversal (Eisenmenger syndrome) causes lower limb but not upper limb cyanosis (1). A bisferiens pulse (C) is commonly associated with aortic stenosis plus aortic regurgitation (2). Graham Steel murmur (D) is a high-pitched diastolic murmur of pulmonary regurgitation in pulmonary hypertension (3).

697. (a) 1, 2 and 3
Renal tubular acidosis (RTA) typically presents with a normal anion gap (1) metabolic acidosis. This normal anion gap is often accompanied by hyperchloremia (2). Additionally, because the renal tubules cannot appropriately secrete acid, urine pH remains inappropriately high (>5.4) despite systemic acidosis (3). These three features help distinguish RTA from other causes of metabolic acidosis, which may involve elevated anion gaps or different urine acidification patterns.

698. (d) 1, 3 and 4
Parkinsonian patients typically show a masked face, bradykinesia, a shuffling or festinating gait (4), and a reduced arm swing (1). Rigidity, which can manifest as cogwheel rigidity (3), is another hallmark. Nystagmus (2) is not a characteristic feature of Parkinson's disease; it can appear in various cerebellar or vestibular disorders but is not routinely tied to parkinsonian syndromes. Hence, 1, 3, and 4 together fit the classical signs of Parkinsonism.

699. (c) 1, 2 and 4
Acromegaly is often associated with insulin resistance; hence skin tags (fibroma molluscum) and sometimes acanthosis nigricans (1) are indeed fairly common. A paradoxical increase in growth hormone secretion after TRH administration (2) is a recognized biochemical anomaly in acromegaly. Around 20–25% of acromegaly patients may develop overt diabetes mellitus (4). While characteristic hand X-rays show bone thickening and tufting, true acro-osteolysis (resorption of distal phalanges) is not typically a common finding. Thus, 1, 2, and 4 are the correct statements.

700. (b) Diffuse nephritis
Lupus nephritis is classified into several histological patterns (Classes I to VI), with diffuse proliferative nephritis (Class IV) being the most severe form. It involves widespread immune complex deposition and inflammation in the majority of glomeruli. Clinically, it can present with severe renal dysfunction and has the highest likelihood of leading to end-stage renal disease if untreated. In comparison, minimal mesangial (Class I), focal segmental (Class III), and membranous (Class V) forms typically have better renal outcomes.

701. (a) Beta blockers
Hypomagnesemia can arise from reduced intake, malabsorption, or excessive losses. Chronic pancreatic insufficiency (b) leads to malabsorption of fats and micronutrients, including magnesium. Poorly controlled diabetes mellitus (c) produces osmotic diuresis and magnesium wasting. Alcoholism (d) is a well-recognized cause due to poor dietary intake and gastrointestinal/renal losses. Beta blockers (a) are not classically associated with significant magnesium depletion. Diuretics, for example, are more notorious for causing electrolyte losses.

702. (c) Giant cell arteritis
Also known as temporal arteritis, giant cell arteritis typically affects older adults and often presents with a new-onset, localized (often unilateral) headache, fever or systemic symptoms, and a markedly elevated ESR. Jaw claudication and visual disturbances can also occur. Tubercular meningitis, migraine, or intracranial mass lesions are less likely in this specific scenario of high ESR plus unilateral temporal-area headache in an elderly patient.

703. (c) Hyperkalemic periodic paralysis
Certain genetic ataxias (e.g., episodic ataxia type 2, spinocerebellar ataxia type 6) involve mutations in calcium channel subunits. Hypokalemic periodic paralysis can also stem from abnormalities in calcium channel genes (e.g., CACNA1S). By contrast, hyperkalemic

Downloaded from www.pdf.tube

periodic paralysis typically results from sodium channel defects (often in SCN4A). Hence, among the listed conditions, hyperkalemic periodic paralysis is not caused by a primary calcium channel mutation.

704. (a) Ethacrynic acid
Loop diuretics act at the thick ascending limb of the loop of Henle to inhibit the Na^+-K^+-$2Cl^-$ symporter. Common examples include furosemide, bumetanide, torsemide, and ethacrynic acid. Spironolactone (b) is a potassium-sparing aldosterone antagonist, indapamide (c) is a thiazide-like diuretic acting primarily in the distal convoluted tubule, and (d) Thiazide refers broadly to the thiazide diuretic class (e.g., hydrochlorothiazide).

705. (d) Extension plantar response
Wernicke's encephalopathy classically presents with the triad of confusion, ophthalmoplegia (or nystagmus), and ataxia. Horizontal nystagmus is common, and a confusional state is practically universal. While various neurological signs may appear with severe thiamine deficiency (including decreased consciousness or memory impairment), an extensor plantar (Babinski) response is not a hallmark feature. Therefore, (d) is the except choice.

706. (d) Low serum potassium
Hepatorenal syndrome involves acute kidney injury in advanced liver disease, with intense renal vasoconstriction and sodium (and water) retention. Patients typically have hypotension (due to splanchnic vasodilation and poor effective circulation), acute renal failure, and markedly low urinary sodium (<10 mEq/L) because of avid sodium reabsorption. Hyperaldosteronism is often present, favoring potassium loss; however, in practice, advanced renal failure can also produce hyperkalemia. Purely low serum potassium as a reliable feature is not characteristic of hepatorenal syndrome.

707. (d) Pulmonary artery
Takayasu's arteritis—often called pulseless disease—primarily affects the aorta and its main branches: the subclavian arteries, the common carotid arteries, and can involve the abdominal aorta as well. While the pulmonary artery can be involved in some cases, it is significantly less common in comparison to the aortic arch branches. Thus, among the listed vessels, the pulmonary artery is considered the least frequently affected (the except) site.

708. (d) 1 and 4
Clubbing is especially associated with infective endocarditis (1), many chronic pulmonary diseases, and certain congenital heart defects that cause right-to-left shunts. Ebstein anomaly (4) can involve significant tricuspid valve malformation leading to cyanosis and a right-to-left shunt across an atrial septal defect, which often presents with clubbing. Simple congestive heart failure (2) or acute pulmonary thromboembolism (3) are not known for classical clubbing.

709. (c) Tricuspid regurgitation
Carcinoid syndrome often releases vasoactive substances into the systemic circulation but primarily affects the right side of the heart first (since the lungs inactivate many of these substances). The fibrotic changes commonly occur on the tricuspid valve, producing tricuspid regurgitation, and also on the pulmonary valve (leading to pulmonary stenosis). Left-sided lesions (mitral/aortic) are less common unless there is a right-to-left shunt or severe bronchial carcinoid.

NODIA

710. (d) 1, 2 and 3
Sodium is reabsorbed along most of the nephron, but the major sites are the proximal convoluted tubule (1), the thick ascending limb of the loop of Henle (3), and the distal convoluted tubule (2). While the collecting duct can also reabsorb sodium (especially under aldosterone), in many standard classifications the primary recognized segments for bulk Na^+ uptake are PCT, thick ascending limb, and DCT. Hence option (d) is the best match among those given.

711. (b) Systemic sclerosis
Systemic sclerosis (scleroderma) typically causes skin thickening and tightening, especially of the face and hands. Oral aperture narrowing

STUDYING FROM PDFs?

THINK AGAIN.

If you are studying only from PDFs,
you are wasting valuable time.

Research shows that learning from

PRINTED BOOKS has up to

4× HIGHER RETENTION

than studying from screens.

PRINT BOOK = BETTER MEMORY

PDF = LOWER RETENTION

Those who study from **PRINTED BOOKS**
move **AHEAD.**

Others are left **BEHIND**
in competition.

In competitive exams,
being average is not enough.

STAY ONE STEP AHEAD.

(microstomia) can make it hard to open the mouth fully, and esophageal involvement causes dysphagia due to collagen deposition in the smooth muscle layer. In contrast, lupus, dermatomyositis, or rheumatoid arthritis do not classically produce such pronounced microstomia plus dysphagia. Therefore, among these choices, systemic sclerosis is the prime suspect.

712. (c) Creatinine clearance rate
Glomerular filtration rate (GFR) is the key index of renal function. Creatinine clearance (whether measured directly or estimated) best reflects GFR among the listed options. Blood urea and serum creatinine provide rough estimations but can be affected by hydration, protein intake, or muscle mass. Renal ultrasound (d) is excellent for anatomical assessment but does not accurately quantify filtration. Thus, creatinine clearance is considered the best practical measure of glomerular function.

713. (b) Bitemporal hemianopia
Lesions at the optic chiasm classically interrupt the crossing nasal-retinal fibers, which carry temporal visual field information. The result is loss of the outer (temporal) halves of each visual field, producing bitemporal hemianopia. By contrast, lesions behind the chiasm (optic tract, radiation, or occipital cortex) produce homonymous hemianopias (the same half of the visual field in each eye). Uni-ocular vision loss suggests a problem in one optic nerve, and concentric field defects typically indicate generalized retinal or other global optic pathology.

714. (a) $2\alpha + 2\beta$
Normal adult hemoglobin (HbA) is typically made up of two alpha and two beta chains ($\alpha_2\beta_2$). There are minor adult hemoglobin variants—HbA_2 ($\alpha_2\delta_2$) and fetal hemoglobin (HbF, $\alpha_2\gamma_2$)—but the principal type, comprising the majority of adult hemoglobin, is $\alpha_2\beta_2$. Thus, option (a) reflects the standard composition of main adult hemoglobin.

715. (a) 1, 2 and 3
In rheumatoid arthritis, the inflamed joint produces a cloudy, inflammatory synovial fluid (1) with reduced viscosity because of proteolytic breakdown of hyaluronic acid (2). Complement levels in the fluid can be decreased due to consumption in the inflammatory process (3). The predominant white cells in active RA fluid, however, are typically polymorphonuclear leukocytes (PMNs) rather than lymphocytes, making statement 4 incorrect. Hence, 1, 2, and 3 are correct.

716. (d) Purpura is seen all over the body especially the upper limbs.
Henoch–Schönlein purpura (IgA vasculitis) usually involves small vessels and frequently follows a respiratory infection (thus making (a) correct). Renal involvement (b) occurs in a significant minority of patients (around 40%). By definition it is a small-vessel vasculitis (c). Classically, the raised purpuric lesions tend to appear over buttocks and lower extremities rather than all over the body, especially upper limbs. Thus, statement (d) is the incorrect one among the listed options.

717. (a) Females are more commonly affected than males.
Cluster headaches are known for severe unilateral orbital/temporal pain, often accompanied by autonomic features (lacrimation, nasal congestion, ptosis) and a tendency to occur in clustered episodes over weeks. They characteristically affect men more frequently than women (opposite of migraine). Unilateral photophobia and periodicity are indeed typical. Thus, the statement that females are more commonly affected is not correct.

718. (a) Autosomal dominant
MODY encompasses a group of monogenic forms of diabetes, often presenting in adolescence or early adulthood but not requiring insulin initially. It typically shows autosomal dominant inheritance (each generation can be affected). This contrasts with type 1 or type 2 diabetes, which are more polygenic/multifactorial. Hence, the correct choice for MODY's inheritance pattern is autosomal dominant.

Click Here to Buy book on Amazon

719. (b) Pleural effusion
A Ghon's complex in primary pulmonary tuberculosis comprises a subpleural parenchymal lesion (the Ghon focus) plus involvement of the associated draining lymph nodes, typically the hilar nodes, often with inflamed lymphatic channels connecting them. A pleural effusion can occur in TB, but it is not considered part of the classic Ghon's complex triad. Thus, (b) is not a defining characteristic of Ghon's complex.

720. (a) A-4 B-3 C-1 D-2
1. Red cell casts (A) → glomerulonephritis (4).
2. Microscopic hematuria (B) → often seen in polycystic kidney disease (3).
3. Proteinuria (C) → hallmark of nephrotic syndrome (1).
4. Broad (so-called renal failure) casts (D) → chronic renal failure (2).

Hence A→4, B→3, C→1, D→2 matches option (a).
(Subject: Nephrology / Clinical Pathology)

721. (d) Babinski plantar response
Guillain–Barré syndrome is an acute inflammatory demyelinating polyradiculoneuropathy primarily affecting lower motor neurons. Classic findings include areflexia or markedly diminished reflexes, an elevated CSF protein with normal cell count (albumino–cytological dissociation), and possible transient autonomic/bladder disturbances. An extensor (Babinski) plantar sign typically signifies upper motor neuron lesions, thus not a usual feature of GBS.

722. (a) Lens of the eye is dislocated downward
In Marfan's syndrome, the lens typically dislocates upward and outward (ectopia lentis), there is a Fibrillin 1 (FBN1) gene defect, and the body habitus leads to a lower-segment predominance (long legs), so the ratio of upper to lower segment < 1 is often observed. Downward lens dislocation is more characteristic of homocystinuria, not Marfan's.

723. (d) Hyponatremia
Tetany arises from reduced ionized calcium or from changes that mimic hypocalcemia (e.g., alkalosis shifting calcium binding). Hyperventilation leads to respiratory alkalosis and can trigger carpopedal spasm. Hypokalemic alkalosis also lowers ionized calcium, and hypomagnesemia can impair parathyroid hormone release, causing hypocalcemia/tetany. Hyponatremia, per se, does not generally cause tetany; it produces neurological symptoms more related to fluid shifts than to neuromuscular irritability.

NODIA

724. (b) 1, 2 and 3 only
Dementia involves cognitive impairment (especially memory), plus deficits in executive function (impaired judgment), personality changes, and other higher cortical functions. However, consciousness is usually clear in dementia (at least until very late stages or superimposed delirium). Clouding of consciousness (4) is more typical of acute confusional states (delirium). Hence, 1, 2, and 3 are features of dementia, making (b) correct.

725. (c) Psoriasis
Koebner's (isomorphic) phenomenon is the tendency for new skin lesions to appear at sites of trauma in certain dermatologic conditions. It is classically described in psoriasis, where scratching or skin injury can precipitate fresh psoriatic plaques. It is also noted in some other diseases (e.g., lichen planus), but among the listed options, psoriasis (c) is the classic association.

726. (d) Renal tubular acidosis
High-anion-gap metabolic acidosis typically arises from accumulations of organic acids or toxins (e.g., lactic acidosis, ketoacidosis, methanol poisoning). Renal tubular acidosis (RTA), however, usually presents with a normal (hyperchloremic) anion gap. RTA is characterized by problems in renal acid handling (distal or proximal), but not by large amounts of unmeasured anions that would elevate the anion gap.

727. (a) Treatment must begin after biochemical confirmation of the diagnosis

Myxedema coma is a life-threatening emergency in hypothyroid patients. Immediate treatment is essential; one cannot safely wait for laboratory confirmation before starting IV levothyroxine and supportive measures. IV levothyroxine (b), gradual rewarming (c), and cautious IV fluids (d) are all correct strategies. Thus, (a) is false because therapy should commence immediately, based on clinical suspicion.

728. (a) Serum sodium
The main driver of plasma osmolality is serum sodium, owing to its high extracellular concentration and accompanying anions. While glucose and urea also contribute, sodium (together with chloride/bicarbonate) dominates the calculation. Potassium (b) is mostly intracellular, so it has less influence on serum osmolality than sodium.

729. (a) Infective endocarditis
Aortic regurgitation can be acute or chronic. Common causes of acute AR include infective endocarditis (valvular destruction), aortic dissection, or traumatic rupture. Conditions like Marfan's syndrome or ankylosing spondylitis more often produce chronic aortic regurgitation. Thus, among these choices, infective endocarditis is the classic cause of a sudden, acute valve insufficiency.

730. (d) Hepatorenal syndrome
Hepatorenal syndrome in end-stage liver disease presents with low urinary sodium (often < 10 mEq/L), benign urinary sediment (no RBC casts, no tubular cells), progressive renal failure, and oliguria. It arises from severe vasoconstriction of the renal circulation under the hemodynamic derangements of cirrhosis. This pattern does not fit acute tubular necrosis or glomerulonephritis (which typically show active urinary sediment or higher urinary sodium).

731. (c) Partial thromboplastin time
Hemophilia A (factor VIII deficiency) and Hemophilia B (factor IX deficiency) both involve the intrinsic coagulation pathway. The activated partial thromboplastin time (aPTT) is prolonged in defects of the intrinsic and common pathways, making it the best laboratory screening test for hemophilia. The prothrombin time (PT) primarily checks the extrinsic pathway. Clotting time is an older, less-precise measure, and clot retraction is more related to platelet function.

732. (b) 1, 2 and 4
While beta-blockers can improve survival after myocardial infarction, they are generally contraindicated or used with extreme caution in certain situations. Acute or decompensated heart failure is risky because negative inotropy can worsen hemodynamics. Orthostatic hypotension may be exacerbated by beta-blockers due to reduced heart-rate response and cardiac output. Bronchial asthma is particularly problematic with nonselective beta-blockers since bronchoconstriction can be triggered via beta-2 receptor blockade. Peptic ulcer disease, however, is not a classic contraindication for beta-blockers.

733. (b) Prinzmetal's angina
Prinzmetal's (variant) angina is characterized by transient episodes of coronary artery spasm, producing transient ST-segment elevations on ECG. Unlike a true myocardial infarction, cardiac enzymes (CPK-MB, troponins) typically remain normal because permanent myocardial necrosis does not usually occur. ST segments return to baseline once the spasm resolves, often yielding a normal follow-up ECG. Patients tend to present with chest pain at rest, frequently in the early morning hours. This pattern contrasts with infarction, where enzyme elevations and persistent ECG changes are typical.

734. (b) High pitched, early diastolic
An opening snap is a brief, high-pitched sound heard soon after S2 (the second heart sound), classically in mitral stenosis when the stenotic mitral valve snaps open at the onset of diastole. The snap is best heard at the left sternal border or apex, and it occurs relatively early in diastole because the left atrial pressure forces the stenotic valve open abruptly. Being high-pitched, it is distinct from low-pitched diastolic sounds such as the third heart sound (S3).

735. (a) Pneumothorax

Downloaded from www.pdf.tube

A spontaneous pneumothorax can begin abruptly with a sharp onset of chest pain followed by sudden cough and difficulty in breathing (dyspnea). When air enters the pleural space, the lung may partially or completely collapse, rapidly impairing gas exchange. This quick change in intrathoracic pressure often manifests as a sudden respiratory distress. By contrast, pneumonia or pleurisy tends to develop more gradually, although they can present acutely. Pneumothorax remains one of the most common causes of an immediate jump in breathing difficulty.

736. (b) Arterial pCO_2 level
Alveolar ventilation effectiveness is best gauged by the arterial partial pressure of carbon dioxide (pCO_2). CO_2 clearance depends largely on ventilation at the alveolar level. If alveolar ventilation decreases, CO_2 accumulates in arterial blood (hypercapnia). By contrast, the arterial pO_2 can be affected by ventilation-perfusion mismatches and other factors beyond pure ventilation. Minute ventilation, while useful, does not distinguish dead space ventilation from alveolar ventilation. Clinically, an elevated pCO_2 signals hypoventilation and the need to improve the patient's respiratory effort or support.

737. (d) Alcoholic liver disease
Marked elevation of transaminases—commonly exceeding 1000 IU/L—is frequently encountered in acute viral hepatitis (e.g., hepatitis A, B, or acute flare of chronic hepatitis), ischemic hepatitis (often termed shock liver due to hypo perfusion), or severe toxin-induced hepatitis (e.g., acetaminophen overdose). In alcoholic liver disease, AST and ALT elevations are typically more modest (often < 300 IU/L), and AST is often higher than ALT (commonly in a 2:1 ratio). Such extremely high levels are not characteristic of pure alcoholic damage.

738. (b) Tuberculous pyelonephritis
Renal papillary necrosis (necrotizing papillitis) is classically associated with SODA: Sickle cell disease, Obstruction/pyelonephritis (usually bacterial), Diabetes mellitus, and Analgesic nephropathy. Although tuberculosis can cause granulomatous inflammation in the kidney, it less commonly produces the specific phenomenon of necrotizing papillitis compared to severe bacterial pyelonephritis. By contrast, sickle cell disease (due to micro infarcts), diabetic micro angiopathy, and chronic analgesic toxicity can all damage the renal papillae, causing their necrosis and sloughing.

739. (d) 2 only
Red blood cell (RBC) casts in urine are the hallmark of acute glomerulonephritis. They reflect bleeding within glomerular or tubular structures, with RBCs becoming embedded in Tamm-Horsfall protein. While granular or hyaline casts can appear in various renal conditions and are not specific, and WBC casts are more typical of pyelonephritis or interstitial nephritis, RBC casts strongly point to a glomerular inflammatory process. Therefore, 2 only (Red cell casts) represents the key and characteristic urinary finding in acute glomerulonephritis.

740. (c) X-linked
Alport's syndrome is primarily caused by mutations in the genes coding for type IV collagen, most frequently the COL4A5 gene on the X chromosome. As a result, the most common inheritance pattern is X-linked. This leads to hematuric nephritis, progressive renal failure, sensorineural hearing loss, and ocular anomalies. Although there are rarer cases with autosomal inheritance involving COL4A3 or COL4A4, about 80% of classic Alport's syndrome follows an X-linked pattern due to COL4A5 mutation.

NODIA

741. (c) chronic renal failure
Broad casts, also known as renal failure casts, form in dilated tubules or collecting ducts of kidneys with significantly reduced function, typically in advanced or chronic renal failure. Because the tubules are atrophic and lumen diameter increases, Tamm-Horsfall protein and cellular debris can form these wider casts. They suggest long-standing kidney disease rather than acute injury. By contrast, acute renal failure or rapidly progressive disease has different urinary

sediment findings (e.g., muddy brown granular casts in acute tubular necrosis).

742. (a) retina
Amaurosis fugax is characterized by sudden, transient monocular vision loss (a curtain coming down) caused by a temporary reduction of blood flow to the retina—often due to an embolus to the central retinal artery. The symptom usually resolves within minutes, restoring normal vision. It is akin to a transient ischemic attack but localized to the ocular circulation. Detection and management of underlying sources of emboli (often carotid plaque or cardiac thrombi) is crucial to prevent more serious ischemic events, such as stroke.

743. (d) Carcinoma bladder
Diabetes mellitus, hyperthyroidism, and uremia (due to chronic kidney disease) are all commonly linked to peripheral nerve damage resulting in polyneuropathy. In diabetes, chronic hyperglycemia injures nerve fibers; in hyperthyroidism, metabolic dysfunction can impact peripheral nerves; in uremia, toxins accumulate and damage nerve function. While some malignancies may produce para neoplastic neuropathies, carcinoma of the bladder is not typically a frequent or well-recognized cause of polyneuropathy compared to the established metabolic conditions in the other choices.

744. (a) urgent CT head and antibiotics
When a child with chronic ear discharge (suggesting middle ear or mastoid infection) presents with fever, headache, and new focal neurological signs or seizures, a brain abscess (often a temporal lobe abscess) must be ruled out immediately. An urgent CT scan of the head (or MRI if available) is essential to confirm or exclude an intracranial abscess or other complications. Empiric intravenous antibiotics targeting likely organisms are started right away. Prompt imaging plus antimicrobial therapy is crucial to prevent progression and serious morbidity.

745. (d) Sickle cell anaemia
Spleen enlargement (splenomegaly) is typical in conditions featuring high hematopoietic turnover or chronic infiltration. Beta thalassemia major and chronic myeloid leukemia can cause significant splenomegaly. Hairy cell leukemia is well known for massive splenic enlargement. In sickle cell anemia, however, repeated vaso-occlusive episodes in the spleen lead to infarctions over time. This process causes autosplenectomy, whereby the spleen becomes small and fibrotic. Hence, sickle cell anemia is the condition here not typically associated with a large spleen.

746. (d) Amoxicillin-Clavulanic acid (amoxyclav)
Megaloblastic anemia often arises from interference with folate metabolism. Methotrexate (a dihydrofolate reductase inhibitor), phenytoin (which interferes with folate absorption) and pyrimethamine (another antifolate) can all cause megaloblastic changes in erythropoiesis. By contrast, amoxicillin-clavulanate is a β-lactam antibiotic that does not significantly affect folate metabolism or vitamin B_{12} metabolism. Therefore, it is not implicated in megaloblastic anemia, making it the correct exception among the listed drugs.

747. (d) high platelet count
DIC is a pathologic process of uncontrolled activation of coagulation, leading to consumption of platelets and coagulation factors. This results in microthrombi in small vessels as well as widespread bleeding. Laboratory hallmarks include prolonged PT and aPTT, elevated fibrin degradation products (or D-dimer), and thrombocytopenia (low platelet count). Hence, high platelet count is distinctly not characteristic of DIC. Indeed, platelets are typically used up in the ongoing coagulation, so their levels drop rather than rise.

748. (b) Renal stones
Vitamin-D resistant rickets (often X-linked hypophosphatemic rickets) features a genetic defect causing renal phosphate wasting and persistent hypophosphatemia. Patients often present with rickets-like bone changes unresponsive to typical doses of vitamin D. Because the defect primarily involves phosphate handling rather than calcium metabolism, they do not typically develop hypercalcemia

Click Here to Buy book on Amazon

or significant hypercalciuria that would predispose to renal stones. X-linked inheritance, hypophosphatemia, and normal (or only slightly affected) calcium absorption are all characteristic; renal calculi are not.

749. (c) If both parents are affected, the risk in their offsprings is above 90 per cent
The overall lifetime risk of schizophrenia in the general population is around 0.5–1%. Advanced paternal age does appear to modestly increase the risk in offspring. When both parents are schizophrenic, the child's risk may rise substantially compared to the general population (up to around 40–50%), but not as high as 90%. Clinically, schizophrenia can manifest with bizarre or severe psychotic symptoms that sometimes superficially resemble a chronic neurosis, but true neurosis differs both diagnostically and in underlying pathology.

750. (d) Increased anion gap
Type 1 (distal) RTA is characterized by an inability to acidify urine in the distal tubule. Typical lab findings include a normal anion gap (hyperchloremic) metabolic acidosis, and patients often have hypokalemia. Disturbances in distal tubular handling of hydrogen ions can also lead to increased urinary calcium losses (risk of stones). Increased anion gap is not a feature of distal RTA (it is a normal anion gap acidosis), hence (d) is not characteristic.

751. (c) Massive proteinuria
Adult Polycystic Kidney Disease (APKD) typically presents with flank pain, hypertension, and hematuria (which can be microscopic or gross). Intermittent renal colic can occur due to cyst rupture or nephrolithiasis. Although proteinuria may occur, it is usually mild or moderate, not in the massive range (>3.5 g/day) that is characteristic of nephrotic syndromes. Thus, massive proteinuria is not a classic feature of APKD, making option (c) the correct exclusion.

752. (b) Mesothelioma
Rheumatoid arthritis (RA) can have various thoracic manifestations, such as rheumatoid nodules within the lung parenchyma, pleural effusions, and fibrosing alveolitis (interstitial lung disease). While RA is linked to an increased risk of pleural disease and certain interstitial processes, there is no well-established association between rheumatoid arthritis and mesothelioma. Mesothelioma is typically linked to asbestos exposure, making (b) the exception in the context of RA complications.

753. (b) Left hemiplegia with aphasia
Occlusion of the right MCA in a right-handed individual typically causes left-sided motor and sensory deficits (left hemiplegia, left hemisensory loss), possible left homonymous hemianopia, and often left-sided neglect or anosognosia if the non-dominant (right) parietal lobe is involved. Aphasia is generally associated with lesions of the dominant hemisphere (usually the left hemisphere in right-handed people). Therefore, left hemiplegia with aphasia (b) does not match a right MCA stroke but rather a left hemisphere lesion.

NODIA

754. (a) Dopamine
Metoclopramide primarily acts by antagonizing dopamine (D2) receptors in the chemoreceptor trigger zone, reducing dopaminergic stimulation of the vomiting center. At higher doses it can also block 5-HT3 receptors, but it actually enhances 5-HT4 receptor activity in the gut to promote prokinetic effects. It does not specifically block histamine or acetylcholine as its main antiemetic mechanism. Thus, the principal neurotransmitter it suppresses in preventing nausea/vomiting is dopamine.

755. (b) AL protein
Primary (AL) amyloidosis is typically caused by the deposition of immunoglobulin light chains or fragments thereof, produced by plasma cell dyscrasias (often multiple myeloma). The fibrils formed are designated AL (Amyloid Light chain). In contrast, AA fibrils refer to serum amyloid A (seen in secondary/reactive amyloidosis), Aβ refers to beta-amyloid in Alzheimer's disease plaques, and β2-microglobulin amyloid accumulates in long-term hemodialysis. Hence, AL protein best matches primary systemic amyloidosis.

756. (d) A-2 B-3 C-1 D-4

1. $\alpha_2 \beta_2 \rightarrow$ Adult Hemoglobin A $\rightarrow$ (2)
2. $\alpha_2 \gamma_2 \rightarrow$ Fetal Hemoglobin (Hb F) $\rightarrow$ (3)
3. $\alpha_2 \delta_2 \rightarrow$ Hemoglobin $A_2 \rightarrow$ (1)
4. $\beta_2 \beta_2 \rightarrow$ Hemoglobin H $\rightarrow$ (4)

Hence the correct sequence is A=2, B=3, C=1, D=4, which matches option (d).

757. (d) Polyneuropathy

Cystic fibrosis commonly presents with malabsorption due to pancreatic insufficiency, meconium ileus or distal intestinal obstruction, and male infertility often due to azoospermia (absent or obstructed vas deferens). While CF can have multiple organ involvement—lungs, pancreas, reproductive tract—peripheral nerve damage (polyneuropathy) is not characteristically a feature. Thus, option (d) is the one that is not commonly seen in cystic fibrosis.

758. (c) delusional disorder

Delusional disorder is characterized by a persistent, well-systematized delusional belief (often persecutory), with relatively preserved functioning and limited or no other psychotic symptoms. The patient's conviction that neighbors conspire against him, despite normal functioning in other areas, fits a persecutory delusion. Schizophrenia usually involves more pervasive disturbance with prominent hallucinations, disorganized behavior/thought, and social/occupational dysfunction. Delusional disorder can include minimal hallucinations connected to the main delusional theme, but they are not typically as global as in schizophrenia.

759. (a) it is usually associated with coronary artery disease

Idiopathic primary pulmonary hypertension is a condition of elevated pulmonary artery pressure in the absence of a known secondary cause. It is more common in females, often presents insidiously (asymptomatic or mild symptoms at first), and can have a familial (autosomal dominant) component with variable penetrance. There is no typical strong association with coronary artery disease, so (a) is the statement that is not true.

760. (d) Serum copper concentration is high

Wilson's disease is an autosomal recessive disorder of copper metabolism, leading to low ceruloplasmin levels and accumulation of copper in tissues (particularly liver and basal ganglia). While free serum copper is elevated, total serum copper is often low or near-normal, because most circulating copper is normally bound to ceruloplasmin. Hence, it is incorrect to say the overall serum copper concentration is high. Kayser-Fleischer rings, hepatic dysfunction, and neurologic/psychiatric changes are hallmark features.

761. (a) Mesothelioma

Transudative effusions form when systemic factors alter fluid dynamics (e.g., increased hydrostatic pressure or decreased oncotic pressure), classically seen in congestive heart failure, cirrhosis, and nephrotic syndrome. Mesothelioma, a malignant pleural tumor often linked to asbestos exposure, typically produces exudative pleural effusions due to local pleural involvement and inflammation. Thus, (a) is not a cause of transudative effusion, making it the correct exception.

762. (b) Endobronchial deposits are common

Secondary (metastatic) lung tumors often present as multiple nodular deposits on chest imaging and can be bilateral. Many patients are asymptomatic or minimally symptomatic, and the diagnosis is typically made via radiologic findings (chest X-ray or CT scan). Although endobronchial metastases can occur, they are relatively rare compared to parenchymal deposits, so it is not correct to call them common. Hence, option (b) is the incorrect statement.

NODIA

763. (c) Whipple's disease

Whipple's disease, caused by Tropheryma whipplei, is characterized by malabsorption, chronic diarrhea, weight loss, and systemic symptoms. On small intestinal biopsy, periodic acid–Schiff (PAS)-positive macrophages packed with non-acid-fast bacilli are a hallmark. Amoebiasis and giardiasis show different histological features (trophozoites). Sarcoidosis can involve the GI tract but is more classically

associated with non-caseating granulomas rather than PAS-positive foamy macrophages.

764. (d) 1, 2 and 3
Achalasia cardia is characterized by failure of the lower esophageal sphincter to relax properly. Standard treatments include pneumatic (balloon) dilatation to disrupt LES fibers, Heller's myotomy (surgical incision of LES muscle) often combined with partial fundoplication to prevent reflux, and endoscopic injection of botulinum toxin, which transiently paralyzes the LES muscle, facilitating esophageal emptying. Thus, all three listed (1, 2, and 3) are recognized treatment options.

765. (d) A-2 B-4 C-1 D-3
1. Lepra reaction → often presents with Erythema Nodosum Leprosum (ENL) → (2)
2. Herpes zoster → reactivation of the Varicella (chickenpox) virus → (4)
3. Psoriasis → known for Koebner's phenomenon (lesions appearing at sites of skin trauma) → (1)
4. Pemphigus vulgaris → Nikolsky's sign (skin/mucosa shears off with pressure) → (3)

Thus A=2, B=4, C=1, D=3.

766. (c) ↓ FRC/TLC ratio
Obstructive lung diseases (e.g., COPD, asthma) typically show increased air trapping, leading to elevated residual volume (RV) and often increased total lung capacity (TLC). The functional residual capacity (FRC) also tends to rise. Because both FRC and TLC often increase, the FRC/TLC ratio usually stays normal or may be increased, not decreased. A reduced FEV_1/FVC (<70%) is the hallmark, and vital capacity can decrease due to the large residual volume. Hence, ↓ FRC/TLC ratio is the incorrect (i.e., except) statement.

767. (a) 1, 2 and 3
In aortic regurgitation, regurgitant flow into the left ventricle during diastole leads to a wide pulse pressure (1) and an early diastolic murmur (3). Patients can experience angina pectoris (2), especially if the regurgitation is significant and compromises coronary perfusion. The first heart sound (S1) is usually normal or even soft; a distinctively loud S1 is more typical of mitral stenosis. Hence 1, 2, and 3 describe AR, whereas (4) does not.

768. (d) 1 and 2 nly
The Austin Flint murmur is a low-pitched mid-diastolic murmur best heard at the apex in cases of significant aortic regurgitation (1). It arises when the regurgitant jet from the aorta strikes the anterior leaflet of the mitral valve (2), causing functional mitral rumbling. It does not indicate actual mitral stenosis (3 is false), nor is it specifically tied to aneurysmal dilation of the aorta (4 is false).

769. (b) multiple sclerosis
Oligoclonal bands on CSF electrophoresis are a classic immunological marker in multiple sclerosis, reflecting intrathecal immunoglobulin production. While they can occasionally appear in other inflammatory conditions of the central nervous system, their presence in the right clinical context strongly supports a diagnosis of MS. Acute bacterial meningitis, subarachnoid hemorrhage, and isolated peripheral neuropathies generally do not feature the same oligoclonal band pattern in the CSF.

770. (b) Wegener's granulomatosis
A miliary pattern on chest imaging is characterized by numerous tiny nodules throughout both lungs, classically seen in disseminated (miliary) tuberculosis and certain fungal infections (e.g., histoplasmosis). Sarcoidosis can sometimes produce diffuse micronodular or reticulonodular patterns. By contrast, Wegener's granulomatosis (now termed Granulomatosis with polyangiitis) typically presents with cavitary nodules, sinus involvement, and glomerulonephritis. It is not a typical cause of a diffuse miliary pattern, making it the except answer.

771. (b) 2, 3 and 4
Normal mean left atrial pressure is typically closer to 6-12 mm Hg, so the range of 12-20 mm Hg (statement 1) is too high for a healthy adult. The listed ranges for LV end-diastolic volume

Downloaded from www.pdf.tube

(70-100 ml/m^2), pulmonary vascular resistance (20-120 dyn·s·cm^{-5}), and ejection fraction (0.55 to 0.80) are within normal physiological limits. Therefore statements 2, 3, and 4 are correct, and statement 1 is not.

772. (a) PaO_2 is decreased and $PaCO_2$ is either normal or low

In acute hypoxemic respiratory failure (Type I), patients have inadequate oxygenation (low PaO_2). They often respond by hyperventilating, leading to a normal or low $PaCO_2$. By contrast, a high $PaCO_2$ typically indicates hypoventilation (Type II respiratory failure). Hence the classic pattern in acute hypoxemic failure is low PaO_2 with normal or reduced CO_2 levels.

773. (d) A-4 B-1 C-3 D-2

1. Hypothyroidism → Hung-up reflexes (delayed relaxation of deep tendon reflexes) → (4)
2. Rheumatic carditis → can manifest conduction delays → Prolonged P–R interval → (1)
3. Subarachnoid hemorrhage → may cause preretinal (subhyaloid) hemorrhages → (3)
4. Morphine poisoning → classic cause of pinpoint pupils (miosis) → (2)

Hence A-4, B-1, C-3, D-2.

774. (d) tapping apical impulse

Signs of impaired ventricular function (heart failure) include elevated jugular venous pressure (raised JVP), pulmonary edema (often heard as late or end-inspiratory crepitations), and a narrowed pulse pressure if stroke volume is compromised. A tapping apex beat is instead classically associated with mitral stenosis, where one can palpate a palpable first heart sound/ tapping quality. It is not indicative of reduced ventricular contractility. Therefore (d) is the except item.

775. (c) focal neurological signs

Idiopathic intracranial hypertension (pseudotumor cerebri) typically presents with raised intracranial pressure (headache, papilledema), leading to visual symptoms like blurred vision or diplopia. Apart from an abducens (VI) nerve palsy, major focal neurological deficits are unusual. It often has a self-limiting course, especially with medical measures (e.g., acetazolamide). Hence, focal neurological signs in the sense of hemiparesis or localized deficits are not characteristic, making (c) the correct except.

776. (b) Factor VIII

Vitamin K is necessary for the γ-carboxylation of factors II, VII, IX, and X, as well as proteins C and S. Factor VIII is not vitamin K-dependent; it is synthesized independently and often affected in hemophilia A. Thus, among the listed options, factor VIII is the correct answer for except, meaning it is not part of the vitamin K-dependent coagulation cascade.

777. (d) Reticulocyte cells

In hemolytic anemias, the bone marrow responds to increased RBC destruction by boosting erythropoiesis, leading to a raised reticulocyte count. Although certain forms of hemolysis may show sickle cells (sickle cell disease), target cells (thalassemia, liver disease), or burr cells in specific conditions, the universal compensatory hallmark of hemolysis is an elevated reticulocyte count, reflecting increased RBC production.

778. (d) Von Willebrand Factor

The body's principal natural anticoagulants include antithrombin III, protein C, and protein S. Von Willebrand Factor (vWF) has a procoagulant role: it helps platelets adhere to subendothelial collagen and also stabilizes factor VIII. Thus, vWF is not an anticoagulant but rather a key factor promoting hemostasis.

NODIA

779. (b) Homocystinuria

Homocystinuria (commonly due to cystathionine β-synthase deficiency) leads to elevated homocysteine levels that predispose to premature atherosclerosis and thromboses, especially in veins and arteries. It can present with lens subluxation, skeletal abnormalities, and a high risk of stroke or other vascular events. Phenylketonuria, galactosemia, and Gaucher's disease have other metabolic derangements but are not classically associated with a strong hypercoagulable state and thromboembolism.

considered a common early feature in many classic descriptions—hence 3 is somewhat less definitive, so the correct combination is 1, 2, and 4.

841. (c) Hepatorenal syndrome
Intrinsic renal disease typically involves direct injury to the kidney structures (glomeruli, tubules, interstitium, or small vessels). Systemic lupus erythematosus can cause lupus nephritis, leptospirosis often leads to acute tubular necrosis, and hemolytic uremic syndrome injures renal microvasculature, causing intrinsic renal failure. By contrast, hepatorenal syndrome is generally a type of pre-renal failure seen in advanced liver disease, with no primary structural damage to the kidneys. Once the liver condition improves, renal function can often recover.

842. (b) Clonazepam
Restless legs syndrome (RLS) can be exacerbated by chronic renal failure. While dopaminergic drugs are the mainstay of RLS management, certain benzodiazepines such as clonazepam also help alleviate symptoms and improve sleep. Quinine is more traditionally used for nocturnal leg cramps (not specifically RLS), and vitamin supplements (E, D) are not first-line therapies for RLS. Clonazepam's sedative and muscle-relaxing effects can be beneficial in restless legs, thus making it the correct answer here.

843. (d) 2 and 4 (Pregnant woman and Post-renal transplant woman)
Guidelines universally recommend screening and treating asymptomatic bacteriuria in pregnancy to reduce the risk of pyelonephritis and related complications. Post-renal transplant patients are immunosuppressed, and untreated bacteriuria can progress to serious infections and compromise the graft. Conversely, young healthy women (option 1) and elderly women (option 3) do not routinely require antibiotic therapy if the bacteriuria is completely asymptomatic. Hence, only categories 2 and 4 warrant active treatment.

844. (d) 1, 2, 3 and 4
Autonomic dysfunction occurs in a broad range of disorders. Diabetes mellitus is well-known to cause autonomic neuropathy, and thallium poisoning can also involve autonomic fibers. Guillain-Barré syndrome often features autonomic instability (e.g. unpredictable blood pressure, heart rate changes), and amyloidosis may infiltrate autonomic nerves. Porphyria can manifest with autonomic neuropathy. While Steele-Richardson-Olszewski syndrome (Progressive Supranuclear Palsy) and ALS are primarily movement/neuron diseases, both can exhibit autonomic involvement in some cases—thus all four pairs can show autonomic dysfunction.

845. (c) Control blood pressure
This presentation suggests an acute ischemic stroke with expressive (motor) aphasia. Although IV tPA is indicated within the therapeutic window (usually up to 4.5 hours), guidelines require that blood pressure be lowered below 185/110 mmHg before administering thrombolytics to reduce hemorrhagic risk. His BP is 200/110 mmHg, so the immediate step is to bring it down to an acceptable threshold. Only after that can IV tPA be safely given, provided no other contraindications exist.

846. (c) Demyelination of neurons
This clinical picture (episodic neurological symptoms such as sensory disturbances and visual field problems, with remission and relapse) is classic for multiple sclerosis, a demyelinating disease of the central nervous system. MRI findings typically show scattered demyelinated plaques. The mechanism involves immune-mediated attacks on myelin sheaths, causing varying neurological deficits that may partially resolve. Antibodies to acetylcholine receptors are linked with myasthenia gravis, while purely axonal degeneration and posterior column degeneration correspond to other pathologies.

847. (d) Hairy cell leukaemia
Myeloproliferative disorders classically include polycythemia vera, essential (or primary) thrombocythemia, chronic myeloid leukemia, and primary myelofibrosis. These arise from

Click Here to Buy book on Amazon

the bone marrow responds by producing more RBCs). Haptoglobin binds free hemoglobin, so it becomes consumed and thus decreases in intravascular hemolysis. Therefore, haptoglobin is not raised; instead, it is low.

788. (b) ST segment elevation is an integral part of LBBB

LBBB does involve QRS prolongation (>120 ms) and can be caused by coronary artery disease or cardiomyopathy. However, persistent ST segment elevation is not an integral or guaranteed feature of LBBB. ST/T changes can be secondary to altered depolarization and repolarization, but classical persistent ST elevation is not a core criterion of LBBB. Hence, option (b) is the incorrect statement.

789. (a) Gamma Amino Butyric Acid

Gamma Amino Butyric Acid (GABA) is the principal inhibitory neurotransmitter in the central nervous system, reducing neuronal excitability throughout the nervous system. In contrast, acetylcholine, dopamine (in certain pathways), and serotonin can all serve excitatory functions (though dopamine can have complex roles). GABA's role is primarily inhibitory, making it the correct choice as the one that is except (not an excitatory transmitter).

790. (c) IV thiopental

Initial management of status epilepticus commonly uses benzodiazepines (e.g., lorazepam or diazepam), followed by antiepileptic agents such as phenytoin/fosphenytoin, valproate, levetiracetam, or phenobarbital. Clobazam (a benzodiazepine) and IV valproate are recognized options in early or established status epilepticus. IV thiopental is typically reserved for refractory status epilepticus when initial measures fail and often requires intensive monitoring because of its profound sedative effects. Therefore, it is not a routine initial drug.

791. (a) Acute lymphocytic leukaemia

Massive splenomegaly is most characteristically seen in conditions like chronic myeloid leukemia (CML), myelofibrosis (with extramedullary hematopoiesis), and hairy cell leukemia. In acute lymphocytic leukemia (ALL), although splenomegaly can occur, it is generally not massive compared with these other disorders. The extremely enlarged spleen in CML or hairy cell leukemia can extend well below the costal margin. Hence, among the listed options, acute lymphocytic leukemia typically does not manifest massive splenomegaly.

792. (b) Frontoparietal network : Face and object recognition

Face and object recognition is primarily linked to the occipitotemporal (fusiform) regions, not the frontoparietal network. The limbic network is important for memory and emotional processing. The perisylvian region (around the Sylvian fissure) is well-known for language functions (Broca's and Wernicke's areas). The prefrontal cortex is involved in executive function, attention, and behavior. Thus, labeling the frontoparietal network as responsible for face and object recognition is inaccurate.

793. (d) A-1 B-2 C-3 D-4

Jugular venous pulse waveforms correspond to mechanical events in the right atrium and ventricle. The 'a' wave reflects atrial contraction (onset of atrial systole → 4). The 'x' descent is due to atrial relaxation (2). The 'v' wave represents filling of the right atrium while the tricuspid valve is closed (3). The 'y' descent occurs when the tricuspid valve opens and blood empties into the right ventricle (1). Thus, A=1, B=2, C=3, D=4.

NODIA

794. (d) Calcium channel blocker

In a patient with heart failure symptoms (orthopnea, pedal edema, basal crepitations) and a likely reduced ejection fraction, standard beneficial treatments include loop diuretics (e.g., furosemide) for volume overload, ACE inhibitors to reduce afterload and remodeling, and certain beta blockers (e.g., carvedilol, metoprolol) shown to improve mortality in heart failure. Many calcium channel blockers, especially the non-dihydropyridines, can depress cardiac function and are generally avoided in systolic heart failure, making them the exception here.

795. (a) Allergic bronchopulmonary aspergillosis

Allergic bronchopulmonary aspergillosis (ABPA) is a hypersensitivity reaction to Aspergillus species in asthmatic or cystic fibrosis patients. It can present with transient (fleeting) pulmonary infiltrates that shift from one area of the lung to another, sometimes accompanied by elevated IgE levels and episodic bronchial obstruction. Tuberculosis, Pneumocystis pneumonia, or Nocardia infections do not typically exhibit this pattern of migratory opacities in someone with known asthma.

796. (b) Oesophageal varices
Massive hematemesis with splenomegaly strongly suggests portal hypertension, in which blood flow through the portal venous system is impeded, commonly leading to dilated submucosal veins in the esophagus (varices). When varices rupture, they cause severe bleeding. Peptic ulcers (duodenal or gastric) typically are not associated with marked splenomegaly. Erosive mucosal disease can cause bleeding but does not usually correlate with an enlarged spleen.

797. (a) Lead poisoning
Lead poisoning primarily affects motor fibers, causing a motor neuropathy (classically wrist or foot drop) rather than a predominant sensory neuropathy. Diabetes mellitus, beriberi (thiamine deficiency), and chronic alcoholism are all recognized causes of peripheral nerve damage that typically present with significant sensory components (pain, paresthesias) and sometimes mixed motor-sensory involvement. Lead toxicity is more known for its motor manifestations and encephalopathy rather than sensory deficits.

798. (b) Low serum chloride
Distal (type 1) renal tubular acidosis is characterized by an inability to acidify the urine in the distal nephron, leading to a normal anion gap (hyperchloremic) metabolic acidosis. The typical findings include low serum potassium and a non-anion-gap acidosis. Because of the difficulty excreting hydrogen ions, ammonium excretion is often low (not high), but crucially, serum chloride is elevated (not low) because bicarbonate is replaced by chloride. Thus low serum chloride is not a feature of distal RTA.

799. (a) Atrial septal defect
Wide, fixed splitting of S2 is a hallmark finding in atrial septal defect (ASD). The left-to-right shunt at the atrial level increases right ventricular stroke volume and delays pulmonic valve closure. This delay causes a persistent splitting that does not vary much with respiration. Ventricular septal defect and patent ductus arteriosus typically affect other components of auscultation, and coarctation of the aorta is associated with different clinical signs (e.g., blood pressure discrepancies in upper vs. lower limbs).

800. (a) Atopic dermatitis
Atopic dermatitis (eczema) frequently presents in infancy with intense pruritus and eczematous lesions, especially on the face and extensor surfaces in younger children. A family history of atopy (asthma, allergic rhinitis) supports this diagnosis. Characteristic features include lichenification and Dennie–Morgan folds (creases under the eyes). Allergic contact dermatitis is uncommon at this young age, and seborrheic dermatitis has a different distribution (scalp, cradle cap). Neurodermatitis is generally a localized, chronic form of lichen simplex.

801. (d) 3 and 4 (Itraconazole and Ketoconazole)
'Spaghetti and meatball' on KOH preparation describes Malassezia (Pityriasis versicolor). Although topical therapy is common, oral agents like itraconazole or ketoconazole are also effective for extensive or resistant cases. Terbinafine is less effective for Pityriasis versicolor (it's more for dermatophytes), and griseofulvin is also not the best choice. Itraconazole and ketoconazole are well-documented oral regimens for this superficial fungal infection.

802. (b) They mask the symptoms of hypoglycaemia
Beta-blockers can blunt the adrenergic warning signs of hypoglycemia (e.g., tremor, tachycardia, anxiety), placing insulin-dependent diabetic patients at greater risk of unrecognized hypoglycemia. While beta-blockers do not

Downloaded from www.pdf.tube

directly reduce insulin efficiency, the loss of these sympathetic cues can be dangerous. Dermatitis herpetiformis is related to gluten sensitivity (celiac disease), and congestive heart failure is not a universal effect of beta-blockers (they can actually help in stable heart failure).

803. (a) They facilitate the absorption of dietary fats
Bile acids (produced from cholesterol in the liver) emulsify dietary fats in the small intestine, creating micelles that allow lipase to act efficiently and enhance fat absorption. While bile can help excrete certain substances (e.g., cholesterol, bilirubin), the principal recognized physiological function of bile acids is to aid in the digestion and absorption of lipids and the fat-soluble vitamins (A, D, E, K). B12 absorption primarily depends on intrinsic factor, not bile acids.

804. (c) Pulmonary thromboembolism
The classic ECG finding S1 Q3 T3 (deep S wave in lead I, Q wave and inverted T wave in lead III) is a recognized sign of acute pulmonary embolism, although not always present. A ventilation-perfusion (V/Q) scan showing multiple perfusion defects is strongly indicative of pulmonary emboli. This patient's recent stroke and likely reduced mobility may have predisposed him to venous thromboembolism. Pneumothorax, heart failure, or psychogenic breathlessness do not typically produce those combined V/Q and ECG findings.

805. (a) Thalassaemia
Thalassaemia is a hereditary hemoglobinopathy involving defective synthesis of globin chains, but it is not traditionally classified as an inborn error of metabolism. Wilson's disease (a copper metabolism defect), phenylketonuria (phenylalanine hydroxylase deficiency), and galactosemia (failure to metabolize galactose) are classic metabolic disorders (errors of intermediary metabolism). Thus, thalassaemia is excluded from that specific category.

806. (c) Peripheral neuritis
Isoniazid (INH), a first-line antitubercular drug, can cause peripheral neuritis by interfering with pyridoxine (vitamin B6) metabolism, leading to a deficiency that manifests as neuropathy. Supplementation with pyridoxine helps prevent this complication. Diarrhea and renal toxicity (acute tubular necrosis) are not typical isoniazid side effects, while hypertrophy is non-specific. Peripheral neuritis remains the most commonly referenced adverse effect of INH therapy.

807. (d) Direct Coombs' test is positive
Hemolytic uremic syndrome (HUS) is a microangiopathic hemolytic anemia characterized by fragmented RBCs (schistocytes), thrombocytopenia, and acute renal failure. The direct antiglobulin (Coombs) test is typically negative in HUS (since it is not an autoimmune hemolysis). Thus, (d) is not true. HUS often follows certain infections (e.g., E. coli O157:H7) and involves mechanical RBC destruction in small vessels, thrombocytopenia, and kidney dysfunction.

808. (c) Intracerebral hemorrhage
A sudden, severe bursting headache with rapid neurological deterioration often indicates a hemorrhagic stroke. While subarachnoid hemorrhage is classically described as a thunderclap headache, if that option is not given, intracerebral hemorrhage is the likely cause of an acute severe headache with altered sensorium. Meningitis and encephalitis typically develop more gradually, and a brain tumor usually has a more protracted presentation.

NODIA

809. (c) Colchicine
Familial Mediterranean fever is an autosomal recessive auto inflammatory disorder that causes recurrent fevers and painful serositis. Colchicine is the cornerstone of prophylactic therapy. It helps reduce the frequency and severity of attacks, and importantly, it lowers the risk of secondary amyloidosis. Doxycycline is an antibiotic, hydroxy chloroquine is used in rheumatoid arthritis and lupus, and iododuxorubicin is not relevant to this condition.

810. (a) Right ventricular infarction
Inferior wall MIs, often due to occlusion of the right coronary artery, can extend to the right ventricle in about one-third of cases (especially if the lesion is proximal). Right ventricular

involvement presents with hypotension, clear lung fields, and elevated jugular venous pressure. Excluding right ventricular infarction is crucial because its management (particularly IV fluids to maintain preload) differs from standard left-sided MI protocols.

811. (d) Sarcoidosis
Alopecia areata, tinea capitis, and secondary syphilis typically produce non-scarring (reversible) hair loss. Alopecia areata is an autoimmune process; tinea capitis is a fungal infection of the scalp; and syphilis can manifest with a moth-eaten alopecia. Sarcoidosis, however, more often causes granulomatous involvement that leads to destruction of hair follicles and scarring alopecia in affected areas. Thus, sarcoidosis is the exception among these options.

812. (a) Cardiac muscle damage
Anthracyclines (e.g., doxorubicin, daunorubicin) are well known for their dose-related cardiotoxicity, which can lead to dilated cardiomyopathy and congestive heart failure. Peripheral neuropathy is more associated with agents like vincristine; hemorrhagic cystitis is a concern with cyclophosphamide; and platinum drugs (like cisplatin) are more notorious for renal toxicity. Hence, the hallmark toxicity unique to anthracyclines is cardiac muscle damage.

813. (c) Dysthymia
Dysthymia (now often termed Persistent Depressive Disorder) is a mood disorder characterized by a chronically depressed mood that lasts for at least two years in adults (one year in children/adolescents). It is less severe than major depressive disorder but is more prolonged and persistent. Unipolar depression is a broader term for major depressive episodes without mania, bipolar depression involves episodes of mania or hypomania, and major depressive disorder typically has more pronounced symptoms but shorter episodes compared to dysthymia.

814. (c) 1, 2 and 3
Acanthosis nigricans is characterized by velvety, hyperpigmented skin plaques, often in body folds (neck, axillae). It is strongly linked to insulin resistance states (obesity, type 2 diabetes) and can also be a paraneoplastic phenomenon, especially with gastric adenocarcinoma. Haemochromatosis is not commonly associated with acanthosis nigricans. Therefore, the conditions correctly associated are 1 (gastric carcinoma), 2 (obesity), and 3 (insulin resistance).

815. (d) Lymphadenitis
Reiter's syndrome, now often called reactive arthritis, is classically described as a triad of conjunctivitis (or uveitis), urethritis, and arthritis. It is a seronegative spondyloarthropathy, meaning rheumatoid factor is typically negative. Lymphadenitis is not part of the classic Reiter's syndrome triad. Hence, (d) is the exception among these listed clinical components.

816. (d) Rheumatoid arthritis
Classical deformities in the hands and wrists are hallmarks of long-standing rheumatoid arthritis (RA). The swan-neck (hyperextension of the PIP joint and flexion at the DIP), boutonniere (flexion of the PIP with hyperextension at the DIP), and a Z-thumb deformity are recognized patterns caused by chronic synovitis and ligamentous changes. Baker's cysts (popliteal cysts) also frequently accompany RA as an outpouching of the joint capsule. Gout, psoriatic arthritis, and reactive arthritis have different typical presentations.

817. (c) Subcutaneous nodules are more frequent in seronegative patients
Rheumatoid arthritis (RA) can involve the cricoarytenoid joint in long-standing disease, and RA patients may show associations with HLA-DR4 (especially seropositive cases). Subcutaneous nodules (rheumatoid nodules) actually occur more commonly in seropositive (RF-positive) patients, not seronegative. RA may also lead to extrapulmonary complications, including pneumonitis and, in rare cases, bowel involvement. Hence, (c) is the false statement (true except).

Click Here to Buy book on Amazon

818. (a) Hypothyroidism
Conditions that cause sympathetic overactivity or abrupt metabolic changes can mimic anxiety or panic attacks. Pheochromocytoma (episodic catecholamine release), hypoglycemia (adrenaline surge), and alcohol withdrawal (tremors, palpitations, anxiety) can closely resemble clinical anxiety. In contrast, hypothyroidism is more often associated with fatigue, lethargy, weight gain, and depressive features rather than anxiety. Thus, among the choices, hypothyroidism is the one that does not typically mimic an anxiety disorder.

819. (d) It may be associated with diabetes insipidus
Celiac sprue (celiac disease) is a gluten-sensitive enteropathy primarily affecting the small intestine. It is confirmed by small-intestinal biopsy (showing villous atrophy) and can be complicated by an increased risk of certain lymphomas. Associated autoimmune conditions often include type 1 diabetes mellitus or thyroid disease, not diabetes insipidus. Hence, it may be associated with diabetes insipidus is incorrect among these typical hallmarks.

820. (b) 1, 2 and 3
In isolated mitral stenosis, the main obstruction is between the left atrium and left ventricle, so the LV diastolic pressure typically remains normal (1). In moderate MS, at rest, cardiac output can still be near normal (2). Progressive MS can lead to severe pulmonary hypertension and right heart strain, causing functional tricuspid regurgitation (3). However, the left ventricular ejection fraction is usually not markedly reduced in isolated MS (4 is false).

821. (c) Hypertrophic cardiomyopathy
A systolic murmur that becomes louder during Valsalva (which decreases venous return and left ventricular end-diastolic volume) is characteristic of hypertrophic obstructive cardiomyopathy (HOCM). The reduced LV volume accentuates the outflow tract obstruction, thus increasing the murmur. Valvular aortic stenosis does not typically intensify with Valsalva in the same way. A heaving apex can also be found in HOCM due to the vigorous LV contraction.

822. (d) Ursodeoxycholic acid
Ursodeoxycholic acid (UDCA) is the mainstay therapy for primary biliary cholangitis (previously called primary biliary cirrhosis). UDCA helps slow disease progression and improve liver biochemistries. Corticosteroids, interferon, or D-penicillamine are not the standard long-term treatments. UDCA can delay the need for transplantation and is well-established for improving outcomes in this autoimmune cholestatic liver disease.

823. (c) Hereditary spherocytosis
Hereditary spherocytosis arises from defects in red cell membrane proteins (e.g., spectrin), producing RBCs that are spherical rather than biconcave. These spherocytes demonstrate increased osmotic fragility (they lyse more readily in hypotonic solutions). Thalassemias, iron deficiency anemia, and pyridoxine deficiency (which affects heme synthesis) do not typically cause this marked increase in osmotic fragility.

824. (d) S_2–O_s interval
In mitral stenosis (MS), the time interval between the second heart sound (S_2) and the opening snap (O_s) of the stenotic mitral valve correlates with severity. A shorter S_2–O_s interval indicates a higher left atrial pressure and more severe stenosis. While the murmur's character and the loudness of S_1 provide clinical clues, the key objective bedside indicator for MS severity is the S_2–O_s interval.

825. (b) High sweat chloride content
Cystic fibrosis typically involves defective CFTR channels, leading to elevated sweat chloride levels. The sweat test (showing sweat chloride 60 mmol/L) is the classic diagnostic investigation. Mucinase deficiency, alpha-1 aldolase deficiency, and abnormal copper excretion are unrelated to CF (the latter is associated with Wilson's disease).

826. (b) Aortic stenosis
An ejection systolic murmur (best heard in the aortic area) and left ventricular hypertrophy on ECG strongly suggest a pressure overload state,

Downloaded from www.pdf.tube

which is characteristic of aortic stenosis. The patient's high blood pressure and chest pain further point to significant outflow obstruction. Positive troponin indicates myocardial strain or injury, which can accompany severe aortic stenosis. The echocardiogram in such cases typically shows thickened, calcified aortic valve cusps with restricted opening, confirming aortic stenosis.

827. (a) Anorexia nervosa
Although this patient binges and purges, her abnormally low weight and amenorrhea point strongly to Anorexia Nervosa (binge/purge subtype). Bulimia Nervosa generally involves normal or above-normal body weight. The key features here are an intense fear of weight gain, persistent behavior to prevent weight gain (including purging), and a significantly low body weight. The presence of amenorrhea further supports Anorexia Nervosa.

828. (a) Relative polycythaemia
Severe diarrhea and vomiting cause significant volume depletion, which concentrates circulating red blood cells and increases the measured hemoglobin, a phenomenon called relative polycythemia. In secondary polycythemia or polycythemia vera, the red cell mass itself is actually increased. Here, the likely culprit is dehydration-induced hemoconcentration, rather than a true overproduction of red blood cells. Rehydration typically lowers the elevated hemoglobin level in such cases.

829. (a) 1, 2 and 3
In an acute severe asthma attack, a marked drop in FEV_1 (below 25% predicted) often correlates with pulsus paradoxus. Early in the attack, patients hyperventilate, lowering $PaCO_2$ and raising pH (respiratory alkalosis). If $PaCO_2$ normalizes or rises, it signals worsening airflow and impending respiratory failure. Cyanosis, however, is not a reliable or early prognostic sign, as significant hypoxemia can occur without obvious cyanosis. Thus, statements 1, 2, and 3 are correct.

830. (c) Cardiac tamponade
Muffled heart sounds, hypotension, and jugular venous distension (the classic Beck's triad) are hallmark findings of cardiac tamponade. The hemodynamics produce a prominent (or rapid) X descent but an absent Y descent on jugular venous pulse tracings. In constrictive pericarditis, by contrast, there is a rapid Y descent. The patient's recent onset of fever and breathlessness alongside these signs makes tamponade (fluid in the pericardial space impairing ventricular filling) the most likely diagnosis.

831. (c) Churg-Strauss syndrome
Churg-Strauss syndrome (also known as Eosinophilic Granulomatosis with Polyangiitis) is characterized by asthma, eosinophilia, and vasculitis. Nasal polyps or rhinitis often occur as part of the respiratory manifestations. Goodpasture's syndrome typically involves hemoptysis and glomerulonephritis, sarcoidosis features noncaseating granulomas, and cryptogenic fibrosing alveolitis leads more to fibrotic lung changes without significant eosinophilia. The combination of asthma, sinus/nasal symptoms, high eosinophil count, and vasculitis strongly suggests Churg-Strauss.

NODIA

832. (a) Wegener's granulomatosis
Wegener's granulomatosis (now called Granulomatosis with Polyangiitis) can present with cavitary lung lesions and renal involvement (glomerulonephritis), leading to hematuria. Tuberculosis can cause cavitation but is less commonly associated with simultaneous haematuria unless there is direct renal TB. Renal cell carcinoma can cause hematuria but would not usually produce multiple cavitary lung lesions in this pattern (it may metastasize but typically appears as nodules). SLE can involve kidneys but typically does not cause multiple lung cavities.

833. (c) Hypocalcaemia
Zollinger-Ellison syndrome involves a gastrin-secreting tumor (gastrinoma) that leads to profound gastric acid hypersecretion. Patients commonly have multiple or refractory peptic ulcers and often develop diarrhea and steatorrhea due to excessive acid inactivating

pancreatic enzymes. Hypercholesteremia is a defining feature. Though hypercalcemia can be associated (especially if part of MEN1), hypocalcemia is not typical and is therefore the except item.

834. (c) Wilson's disease
Kayser-Fleischer rings are copper deposits in Descemet's membrane of the cornea, best seen by slit-lamp examination. Their presence is pathognomonic for Wilson's disease, a disorder of copper metabolism caused by mutations in the ATP7B gene. In alcoholic cirrhosis or primary biliary cirrhosis, such corneal rings are not characteristic. Crigler-Najjar syndrome involves problems with bilirubin conjugation and does not feature copper deposition. Thus, Wilson's disease is the condition definitively associated with Kayser-Fleischer rings.

835. (d) Patterson-Kelly syndrome
Patterson-Kelly syndrome (also known as Plummer-Vinson syndrome) is characterized by dysphagia for solids, iron deficiency anemia, and esophageal webs. The syndrome typically appears in middle-aged women with long-standing iron deficiency and leads to mucosal changes that contribute to web formation. Pharyngeal pouch typically presents with regurgitation and gurgling in the neck; carcinoma of the esophagus often has progressive dysphagia for solids then liquids; dysphagia lusoria is due to a vascular anomaly.

836. (a) Hemolysis
Although the wording here is confusing, Dubin-Johnson syndrome is classically associated with isolated conjugated (direct) hyperbilirubinemia. By contrast, hemolysis, Gilbert's syndrome, and Crigler-Najjar all primarily cause unconjugated (indirect) hyperbilirubinemia. Of these, haemolysis most distinctly elevates unconjugated bilirubin because of excess breakdown of red blood cells. Therefore, under the question's phrasing, haemolysis is the except for an isolated conjugated hyperbilirubinemia scenario.

837. (d) Radioisotope ^{125}I-iothalamate clearance
True GFR measurement requires using a substance that is freely filtered and neither reabsorbed nor secreted by the kidney. In practice, inulin clearance is the historical gold standard, but radioisotopes like ^{125}I-iothalamate also closely measure real GFR. Serum creatinine or creatinine clearance tends to overestimate GFR slightly due to tubular secretion of creatinine, and urea clearance is affected by reabsorption changes. Hence, ^{125}I-iothalamate clearance remains one of the most accurate measures of GFR.

838. (b) Prednisolone
Acute Interstitial Nephritis (AIN) is commonly triggered by certain medications. NSAIDs, some antibiotics (like penicillins), and even drugs like allopurinol and penicillamine have been implicated in AIN. Prednisolone, however, is actually used to treat inflammatory kidney conditions (including AIN) rather than cause it. Thus, prednisolone is the correct except choice because it is not classically associated with initiating acute interstitial nephritis.

839. (a) Hypertension responds well to drugs
Renal artery stenosis commonly leads to secondary hypertension that is often resistant to standard antihypertensive therapies, making it hard to control. Atherosclerotic plaques (especially in older patients) or fibromuscular dysplasia (in younger patients) cause the narrowing, and the kidneys may become asymmetrical if one side is more affected. Because GFR depends on efferent arteriolar pressure in these patients, ACE inhibitors can reduce that pressure further and abruptly raise serum creatinine. Hence, hypertension responds well to drugs is not typical.

840. (c) 1, 2 and 4
Idiopathic membranous nephropathy is linked to HLA-DRw3, so statement 1 is correct. Microscopic hematuria is indeed found in a significant proportion (around 50–60%), so statement 2 is correct. Renal vein thrombosis risk is markedly increased (sometimes up to 30–50%), making statement 4 valid. While hypertension can appear, it is not universally

Click Here to Buy book on Amazon

780. (a) Cushing's syndrome
Hyperkalemia can result from massive cell breakdown (crush injury, intravascular hemolysis) and from decreased excretion (renal failure). Cushing's syndrome, however, typically features an excess of glucocorticoids which may have mineralocorticoid-like activity, or it is frequently associated with hyperaldosteronism (in some etiologies), leading to hypokalemia rather than hyperkalemia. Thus, (a) is the one that generally does not cause elevated serum potassium.

781. (c) Infective endocarditis
Roth's spots are retinal hemorrhages with pale centers, classically associated with infective endocarditis. They result from immune complex deposition or septic microemboli in the retinal vessels. While Roth's spots can sometimes be reported in other conditions (e.g., severe anemia or leukemia), their classic textbook association remains with infective endocarditis. Infective endocarditis leads to various embolic phenomena and immunologic manifestations, among which Roth's spots are a hallmark finding.

782. (a) Left anterior descending artery
An acute anterior wall myocardial infarction (MI) most commonly involves the left anterior descending (LAD) artery. The LAD supplies the anterior wall and the interventricular septum. A 42-year-old smoker presenting with classical anterior wall changes (ST elevations in anterior leads on ECG) is most likely to have a blockage in this vessel. Obstruction of the LAD can lead to significant morbidity because it supplies a large portion of the left ventricle, making early intervention critical.

783. (d) Left atrial thrombus
Percutaneous mitral balloon valvuloplasty is generally indicated in patients with symptomatic, isolated, pliable (non-calcified) mitral stenosis. Significant symptoms (e.g., dyspnea) and favorable valve morphology (i.e., mobile leaflets with minimal calcification) are required for good outcomes. However, the presence of a left atrial thrombus is a contraindication because the procedure risks dislodging the clot, leading to systemic embolization. Hence, (d) is the exception and is not a criterion for valvuloplasty.

784. (a) Complete heart block
Cannon A waves occur when the right atrium contracts against a closed tricuspid valve, causing a forceful backflow and marked jugular venous pulse waves. This scenario typically arises in complete (third-degree) heart block where atrial and ventricular contractions are dissociated. Because the atria and ventricles beat independently, sometimes atrial systole coincides with ventricular systole (closed tricuspid valve), creating the pronounced cannon a wave. It is not characteristic of hypertrophy or valve stenosis alone.

785. (d) A-2 B-3 C-1 D-4
Parkinsonism is best managed symptomatically by dopamine-replacement therapy such as levodopa
(A→2). Migraine prophylaxis and acute treatment often involve ergot derivatives (e.g., ergotamine) (B→3). Motor neuron disease (such as amyotrophic lateral sclerosis) can be slowed marginally by riluzole (C→1). Multiple sclerosis disease-modifying therapy includes interferon-β1a (D→4). Thus, A–2, B–3, C–1, D–4 matches option (d).

786. (a) Tall spiky P wave
Right atrial hypertrophy (RAH) typically produces a tall, peaked P wave (sometimes called P pulmonale) in leads II, III, and aVF on the ECG. A widened P wave is more characteristic of left atrial enlargement (P mitrale). Prolonged P-R interval indicates AV nodal conduction delay, while an increased P-Q segment is not commonly used as an indicator of atrial enlargement. Hence, tall spiky P waves are the classic hallmark of right atrial overload.

787. (d) Haptoglobin
In intravascular hemolysis, red cells rupture within blood vessels, freeing hemoglobin into circulation. This leads to elevated unconjugated bilirubin, elevated lactate dehydrogenase (LDH), and an increased reticulocyte count (as

NODIA

clonal proliferation of hematopoietic stem cells in the myeloid lineage. Hairy cell leukemia, by contrast, is a chronic B-lymphoproliferative disorder involving abnormal B cells. Although it presents with splenomegaly and cytopenias, it is not classified as a myeloproliferative neoplasm.

848. (b) Ximelagatran
Ximelagatran was one of the first oral direct thrombin inhibitors introduced as an alternative to warfarin. Its major advantage, at least in early trials, was that it did not require routine coagulation monitoring, unlike warfarin. Fondaparinux, while effective, is administered subcutaneously rather than orally. Snake venom derivatives and ancrod are not standard oral options. Although ximelagatran was ultimately withdrawn from many markets due to hepatic side effects, it illustrates the concept of a direct oral anticoagulant without monitoring.

849. (b) Increased RBC life span
Hereditary spherocytosis is caused by RBC membrane defects (commonly in spectrin or ankyrin) that render cells more spherical and prone to splenic sequestration. This leads to decreased (not increased) RBC life span. Splenomegaly is common because of extravascular hemolysis in the spleen, and pigment gallstones can form due to increased bilirubin from hemolysis. Splenectomy often improves symptoms significantly, making it a very effective treatment. Hence, Increased RBC life span is the incorrect statement.

850. (d) Serum ferritin
Serum ferritin correlates closely with total body iron stores and is considered the best single screening test for iron deficiency or iron overload under most circumstances. Although it can be raised as an acute-phase reactant in infections and inflammatory conditions, it still remains the most practical and convenient initial test. Serum iron or transferrin levels can fluctuate during the day, and hemoglobin alone does not provide direct information about iron stores.

851. (d) Von Willebrand disease
Classically, an isolated prolongation of aPTT (with normal PT and bleeding time) suggests a factor in the intrinsic pathway (e.g., factors VIII, IX, XI). Hemophilia is a prime suspect in such a scenario. However, since hemophilia is not listed, the question likely points to a clotting factor abnormality in the factor VIII complex. Von Willebrand disease can prolong aPTT by reducing factor VIII levels, though it often prolongs bleeding time as well. Among the options given, vWD is the closest fit.

852. (a) Type I Diabetes mellitus
Type 1 diabetes mellitus is characterized by autoimmune destruction of pancreatic β-cells and has a strong genetic link with certain HLA haplotypes (notably HLA-DR3 and HLA-DR4). Type 2 diabetes does not show such a marked HLA association. Stress-related hyperglycemia and gestational diabetes are typically due to insulin resistance or transient factors, rather than the classic autoimmune, HLA-associated process that defines type 1.

853. (b) Myocardial infarction
Macrovascular complications—particularly coronary artery disease—are the most common cause of mortality among patients with type 2 diabetes. Although diabetic ketoacidosis and renal failure are significant complications, the leading single cause of death in long-standing type 2 diabetics remains ischemic heart disease (myocardial infarction). Diabetic patients often have accelerated atherosclerosis, putting them at high risk for MI even without classic angina.

854. (c) Primary aldosteronism
Gynecomastia results from an imbalance between estrogenic and androgenic effects on breast tissue. Pubertal hormonal surges can cause temporary gynecomastia. Primary hypogonadism can elevate gonadotropins, leading to increased peripheral conversion of androgens to estrogens. Choriocarcinoma of the testis produces high levels of hCG, which can act similarly to LH, boosting estrogen production. Primary aldosteronism (Conn's syndrome) does not typically raise estrogen levels or cause gynecomastia, making it the except.

Downloaded from www.pdf.tube

855. (d) She has Medullary carcinoma
Medullary thyroid carcinoma (MTC) arises from calcitonin-secreting parafollicular C-cells. Elevated calcitonin lowers blood calcium, sometimes leading to hypocalcemia. Papillary and follicular carcinomas typically do not cause calcitonin overproduction, and metastasis to the parathyroid is an unlikely scenario for hypocalcemia. MTC is therefore the clear explanation for a thyroid malignancy associated with low serum calcium.

856. (d) Hyperparathyroidism
Primary hyperparathyroidism often presents with stones, bones, abdominal groans, and psychic moans, reflecting hypercalcemia's effects. Recurrent calcium-containing kidney stones (renal calculi), hypertension, and elevated serum calcium levels are characteristic. Proteus infections typically cause struvite stones, Factor VIII deficiency is unrelated to kidney stones, and hyperaldosteronism more classically involves hypokalemia and metabolic alkalosis rather than hypercalcemia. Thus, hyperparathyroidism is the most likely culprit.

857. (a) Serum prolactin level
Galactorrhea plus menstrual irregularities (scanty menses) strongly suggests hyperproteinemia—commonly caused by a protactinium (a pituitary adenoma). The enlarged sella on X-ray supports a pituitary tumor. While hypothyroidism (low thyroid function) can also elevate prolactin somewhat, the hallmark test here is directly measuring serum prolactin. Very high levels confirm hyperproteinemia as the likely cause of galactorrhea and menstrual disturbance.

858. (c) Sarcoidosis
Sarcoidosis can cause hypercalcemia due to activated macrophages in granulomas converting vitamin D to its active form, increasing calcium absorption. Corticosteroids inhibit this process, so they often rapidly reduce serum calcium in sarcoidosis. Primary hyperparathyroidism is driven by parathyroid hormone overproduction, which is not typically reversed by steroids; milk-alkali syndrome arises from excessive calcium and alkali intake, and Paget's disease primarily involves abnormal bone remodeling.

NODIA

859. (b) Metabolic alkalosis
In metabolic alkalosis, hydrogen ions shift out of cells to compensate, driving potassium into cells and lowering serum potassium. Also, persistent alkalosis often accompanies volume contraction that leads to secondary hyperaldosteronism, which promotes renal potassium excretion. Therefore, metabolic alkalosis and hypokalemia commonly coexist. By contrast, in pure metabolic acidosis, potassium can shift out of cells and become elevated in serum.

860. (b) Diabetic nephropathy with albuminuria
ACE inhibitors such as enalapril are actually recommended in diabetic nephropathy to reduce intraglomerular pressure and slow progression of kidney disease. Conversely, one must use extreme caution (or avoid use) in bilateral renal artery stenosis because of potential acute renal failure, in patients with a single functioning kidney (also a high risk of renal compromise), and in hyperkalemia since ACE inhibitors can further elevate potassium. Thus, diabetic nephropathy is the except scenario where enalapril is beneficial, not contraindicated.

861. (d) Reactive arthritis
Reactive arthritis (formerly Reiter's syndrome) is a sterile inflammatory arthritis that develops after either a genitourinary or gastrointestinal infection. The patient's history of fever and diarrhea a few weeks before joint symptoms fits well. Mild back involvement is possible, as reactive arthritis is part of the seronegative spondyloarthropathies. Normal ESR but elevated CRP can be seen in early or mild disease. Ankylosing spondylitis usually has more prominent spinal involvement, and rheumatoid arthritis is less likely with this history.

862. (c) Palatal paralysis
Giant Cell Arteritis (temporal arteritis) typically presents with new-onset headache (often temporal), jaw claudication, scalp tenderness, and visual disturbances (including transient or permanent vision loss). Jaw claudication is actually quite characteristic, and acute vision loss (or blurred vision) may occur due to involvement of the ophthalmic artery. Palatal

paralysis or other cranial nerve palsies are not a usual feature of this condition, making palatal paralysis the best choice for not characteristic.

863. (b) Response to oral corticosteroids typically occurs within seven days
Polymyalgia rheumatica (PMR) responds quite dramatically to low-dose corticosteroids, often within 24–72 hours. A quick improvement in symptoms (especially proximal muscle pain and stiffness) is almost diagnostic. Temporal artery biopsy is not always mandatory in isolated PMR (though considered if giant cell arteritis is suspected). There is no strict requirement to discontinue steroids by six months, and sudden monocular blindness would be more consistent with giant cell arteritis complication, not cataract.

864. (a) Rheumatoid arthritis, splenomegaly and neutropenia
Felty's syndrome is a triad characterized by seropositive rheumatoid arthritis, splenomegaly, and neutropenia. Patients often have long-standing RA. The combination of low white cell count, a large spleen, and active joint disease fits this classic entity. Hepatomegaly or anemia are not defining features of Felty's (though anemia of chronic disease can occur in RA). Psoriasis and reactive arthritis are different arthropathies.

865. (c) 1, 2 and 3
Valproic acid is a broad-spectrum agent: it is an established first-line treatment for mania in bipolar disorder, a common prophylactic medication for migraine headaches, and has utility in hyperkinetic movement disorders, including Sydenham's chorea. While valproate can sometimes be used adjunctively for certain psychiatric conditions, it is not standard therapy for obsessive-compulsive disorder (where SSRIs are typical). Hence, Sydenham's chorea (1), migraine (2), and mania (3) are the correct matching indications.

866. (d) Hallucinations
Negative symptoms in schizophrenia include reduced emotional expression (affective flattening), anhedonia (lack of pleasure), avolition (lack of motivation), alogia (poverty of speech), and social withdrawal. Hallucinations, however, are a positive symptom—an abnormal perceptual phenomenon. Similarly, delusions and disorganized speech/behavior also fall under positive symptoms. Impaired concentration can sometimes be considered part of cognitive deficits in schizophrenia but is closer to the negative/cognitive cluster than hallucinations, which are explicitly positive symptoms.

867. (d) 1, 2 and 4
Although there are no absolute contraindications to ECT, certain conditions pose significant risks. A recent myocardial infarction (especially within days/weeks) raises concern over hemodynamic stress, while a recent cerebrovascular accident implies fragile cerebral vasculature. Retinal detachment can worsen with the increased intraocular pressure from seizures. An artificial heart valve alone is not a direct contraindication (though prophylactic measures may be needed). Hence, conditions 1, 2, and 4 represent relative contraindications to ECT.

868. (a) Bipolar disorder
Lithium remains a cornerstone for managing bipolar disorder, especially the classic presentation with manic and depressive episodes. It stabilizes mood, reduces the frequency and severity of relapses, and helps prevent suicide in bipolar patients. By contrast, dysthymia (persistent depressive disorder), anxiety disorders, and schizophrenia typically require other treatments such as antidepressants, anxiolytics, or antipsychotics, respectively. Although atypical antipsychotics and anticonvulsants can also treat bipolar, lithium is historically regarded as the drug of choice.

869. (c) A-4 B-1 C-3 D-2
In myxedema (severe hypothyroidism), pseudomyotonia (delayed relaxation of reflexes) can be seen.

1. Kallmann syndrome features anosmia (lack of smell) alongside hypogonadism.
2. Hyperaldosteronism typically produces a metabolic alkalosis (along with hypokalemia).

Click Here to Buy book on Amazon

884. (d) Progressive supra nuclear palsy
Progressive supranuclear palsy (PSP) is marked by supranuclear ophthalmoplegia (especially vertical gaze palsy) and frequent backward falls early in the disease course. Huntington's chorea features choreiform movements and psychiatric changes; Parkinson's disease usually presents with bradykinesia, rigidity, and tremor, with falls generally appearing later; Shy-Drager syndrome (multiple system atrophy) emphasizes autonomic dysfunction. The hallmark of ophthalmoplegia and repeated falls in an elderly patient best aligns with PSP.

885. (c) 1, 2 and 3
In proximal (Type II) Renal Tubular Acidosis, there is a defect in bicarbonate reabsorption in the proximal tubule. Established causes include amyloidosis (which infiltrates the proximal tubule), heavy metal poisoning (e.g., lead), and renal transplant rejection (which damages tubules). Hyperparathyroidism is more often linked with other renal issues (e.g., nephrocalcinosis, possible distal RTA), not primarily with proximal RTA. Therefore, the recognized causes of Type II RTA among the listed options are amyloidosis, heavy metal poisoning, and renal transplant rejection.

886. (b) Total leukocyte count 11,000/cu mm
Hospital admission guidelines for pneumonia generally highlight markers of severity like high respiratory rate (≥30/min), confusion or altered mental status, and significant hypoxemia (PaO_2 <60 mmHg). A white blood cell count exceeding 11,000/μL is common in pneumonia but by itself is not a definitive criterion for admission; many outpatients have elevated WBC counts. Thus, among the listed options, a WBC count >11,000/μL is not strictly used as an admission trigger and is the correct except item.

887. (c) Bronchial asthma
Allergic bronchopulmonary aspergillosis (ABPA) is a hypersensitivity reaction to Aspergillus organisms colonizing the bronchial tree. It most classically occurs in patients with asthma or, occasionally, cystic fibrosis. Characteristic features include episodic bronchial obstruction, fleeting pulmonary infiltrates, elevated IgE levels, and central bronchiectasis. It is not associated with lung cancer, tuberculosis, or sarcoidosis in the typical manner that it is with asthma.

888. (d) TSH
The patient's symptoms (weight gain, coarse hair, constipation, and menorrhagia) suggest hypothyroidism. The most appropriate single initial screening test is serum TSH (thyroid-stimulating hormone). If TSH is elevated, further evaluation with free T4 is appropriate. Thyroid scans and serum iodine levels are not first-line in straightforward suspected primary hypothyroidism. TSH offers a reliable gauge of thyroid function by indicating whether the pituitary is sensing and responding to low circulating thyroid hormone levels.

889. (b) X linked recessive
Duchenne muscular dystrophy (DMD) is caused by mutations in the dystrophin gene on the X chromosome. Being X-linked recessive, it primarily affects males, who inherit the defective gene from carrier mothers. Females typically do not manifest the full disease because they possess two X chromosomes (though carriers can have mild symptoms). This is distinct from X-linked dominant disorders, which affect both sexes more uniformly, and from autosomal inheritance patterns that involve non-sex chromosomes.

890. (c) Recombinant factor VIII concentrate
Haemophilia A results from a deficiency in Factor VIII, a key cofactor in the intrinsic coagulation pathway. The standard treatment is to replace Factor VIII, preferably using recombinant factor VIII concentrates, to avoid transmissible infections and to achieve precise dosing. Epoprostenol and steroids are unrelated to correcting the clotting factor deficiency. Simple blood transfusion is insufficient since factor levels in whole blood are generally low and not specifically targeted at correcting factor VIII deficiency.

891. (b) 4 – 6 weeks

NODIA

stimulate the thyroid. Thus, T_4 and T_3 are low, TSH is high. In secondary (pituitary) or tertiary (hypothalamic) hypothyroidism, TSH can be normal or low, but that is not the case here.

877. (d) Enalapril
ACE inhibitors reduce the conversion of angiotensin I to angiotensin II, lowering blood pressure and reducing aldosterone-mediated fluid retention. Enalapril, captopril, and lisinopril are classic examples. Atenolol is a beta-blocker, prazosin is an α_1-blocker, and hydralazine is a direct arterial vasodilator. Among the listed choices, only enalapril is an ACE inhibitor.

878. (a) Nalidixic acid
Pseudotumor cerebri (idiopathic intracranial hypertension) can be induced by several medications (e.g., tetracyclines, excess vitamin A). Among the listed, nalidixic acid—a quinolone-like antibiotic historically used for UTIs—has been documented to cause increased intracranial pressure in children, presenting as pseudotumor cerebri. Ampicillin, chloramphenicol, and ceftriaxone are not commonly implicated in intracranial hypertension.

879. (d) Paroxysmal supraventricular tachycardia
Paroxysmal supraventricular tachycardia (PSVT) is characterized by an abrupt onset and offset of a rapid, regular heart rate (often 150–250 bpm). Carotid sinus massage increases vagal tone, frequently terminating or slowing PSVT dramatically—as in this case, where the rate drops from 172 to 72 bpm. Ventricular tachycardia generally does not respond so promptly, and atrial fibrillation is irregularly irregular. Sinus arrhythmia involves only slight rate variation with respiration, not a sudden drop.

880. (c) Normal saline infusion
In an inferior myocardial infarction with hypotension (BP 80 mmHg), right ventricular involvement is possible, making the heart very preload-dependent. The initial step is to restore intravascular volume. Normal saline infusion provides a rapid increase in preload, helping to correct hypotension. Although thrombolysis or PTCA may be critical for reperfusion, they do not directly address the immediate hypotension. Vasopressors like dopamine may be considered later if fluid resuscitation fails, but fluid administration is the first measure to improve BP.

NODIA

881. (b) Acute severe asthma
The patient's atopic background (indicating a predisposition to allergic reactions), marked respiratory distress (cannot complete sentences), and severe hypoxemia on arterial blood gas are hallmark signs of acute severe asthma. While pneumonia might present with fever and focal findings on examination, tension pneumothorax usually shows absent breath sounds on one side and can present more acutely, and acute pleurisy alone does not usually cause such profound hypoxia. Acute severe asthma aligns best with this combination of clinical features.

882. (b) Zenker's diverticulum
Zenker's diverticulum is a pharyngoesophageal pouch where food can accumulate and be regurgitated days after ingestion. Foul-smelling breath (halitosis) results from stagnation and bacterial growth within the diverticulum, and dysphagia for solids is common. Gastric outlet obstruction or diabetic gastroptosis typically involves partially digested food and different clinical contexts. Scleroderma primarily causes dysphagia to both solids and liquids due to esophageal motility problems rather than regurgitation of old food. Thus, Zenker's diverticulum fits this presentation.

883. (b) Diffuse strictures of common bile duct
Ulcerative colitis is frequently associated with primary sclerosing cholangitis (PSC). PSC is characterized by a beaded appearance on cholangiography due to multiple strictures and dilatations in the bile ducts. Malignant strictures suggest chondrification, which has a different clinical context. Stones are not typical in this scenario, and a normal ERCP would not explain progressive jaundice and pruritus. Therefore, diffuse strictures in the common bile duct (and possibly intrahepatic ducts) is the classic finding.

sclerosis is also characterized by seizures, mental developmental issues, and benign tumors in various organs. The other listed conditions—atopic dermatitis, lichen planus, and nummular eczema—do not characteristically feature ash leaf spots.

899. (a) Celiac sprue
The question describes dermatitis herpetiformis, which shows granular IgA deposits in the dermal papillae or mucoepidermal junction. It is characterized by intensely pruritic, grouped vesicles and is strongly associated with celiac disease (celiac sprue). Patients often have gluten sensitivity and respond well to a gluten-free diet and dapsone. Lactase deficiency and Whipple's disease have different clinical pictures, while ulcerative colitis is typically associated with different extraintestinal manifestations.

900. (d) Localised tenosynovitis of the flexor tendons of the fingers is an infrequent cause.
Carpal tunnel syndrome (CTS) occurs when the median nerve is compressed at the wrist. Common risk factors include hypothyroidism, rheumatoid arthritis (involving tenosynovitis), pregnancy, and repetitive wrist motions. Nighttime pain and numbness, plus weakness in thumb opposition or abduction, are well-documented features. Tenosynovitis of the flexor tendons, especially in inflammatory conditions, is actually a frequent and recognized cause of CTS—not an infrequent one. Thus, option (d) is the statement that is not correct.

901. (c) A-3 B-4 C-1 D-2
Anti-dsDNA is highly specific for systemic lupus erythematosus (SLE).
1. Anti-RNP is associated with mixed connective tissue disease (MCTD).
2. Anti-histone is linked with drug-induced lupus.
3. Anti-centromere is characteristic of CREST syndrome (limited scleroderma).

902. (b) Myasthenia gravis
Myasthenia gravis is an autoimmune disorder affecting the neuromuscular junction (anti-acetylcholine receptor antibodies), causing fluctuating skeletal muscle weakness. Classic features include ocular muscle involvement (ptosis, diplopia), bulbar symptoms (dysphagia), and limb weakness that worsens with activity. Thyrotoxic myopathy, muscular dystrophy, and hypokalemic periodic paralysis present differently. The acute onset of bilateral ptosis plus generalized weakness with bulbar symptoms most strongly suggests myasthenia gravis.

903. (c) Flight of ideas
Schizophrenia is marked by delusions, hallucinations, disorganized thinking, and loosening of associations. Flight of ideas is more typical of bipolar mania, where the patient rapidly shifts between loosely connected thoughts at high speed. In schizophrenia, formal thought disorder is often described as tangentiality, circumstantiality, or derailment but not classic flight of ideas. Therefore, among the listed options, flight of ideas does not characteristically define schizophrenia.

904. (d) A-1 B-4 C-2 D-3
Thioridazine can cause pigmentary retinopathy, a known ocular toxicity.
1. Clozapine may lead to agranulocytosis (severe neutropenia) and thus requires regular blood counts.
2. Olanzapine frequently causes sedation (somnolence), weight gain, and metabolic issues.
3. Haloperidol often produces extrapyramidal effects such as akathisia.

Thus, A→1, B→4, C→2, D→3.

905. (c) A-4 B-3 C-2 D-1
Bipolar disorder is commonly stabilized with lithium.
1. Major depression often responds to antidepressants like venlafaxine (an SNRI).
2. Schizophrenia can be treated with antipsychotics, such as clozapine (particularly in resistant cases).
3. Obsessive compulsive disorder is frequently managed with higher-dose SSRIs or clomipramine (a tricyclic).

Thus, A→4, B→3, C→2, D→1.

906. (c) Acetylcholine

Downloaded from www.pdf.tube

Acute bacterial prostatitis typically requires a prolonged antibiotic course to ensure eradication of pathogens from the prostate tissue and to prevent progression to chronic prostatitis. Short-term regimens (3, 7, or even 14 days) are usually inadequate. Most guidelines recommend at least 4 weeks, and often 4–6 weeks total therapy, particularly if the infection is severe or complications might occur. This longer duration helps achieve complete bacterial clearance, reducing recurrence risk.

892. (a) Lymphocytes
Polycythemia vera is a myeloproliferative disorder with elevated RBC mass, often accompanied by increased WBC (especially granulocytes) and platelets. While there can be some fluctuation in lymphocyte counts, the most characteristic abnormalities are marked erythrocytosis and frequently thrombocytosis and neutrophilia. Lymphocytes may remain closer to normal ranges compared to these other cell lines, making them most likely to be within normal limits in polycythemia vera.

893. (d) Frusemide
In nephrogenic diabetes insipidus, the kidneys do not respond adequately to ADH. Thiazides reduce urine output by promoting mild volume depletion, which increases proximal sodium and water reabsorption. Amiloride helps particularly if lithium-induced nephrogenic DI is suspected, and NSAIDs like indomethacin reduce renal prostaglandins, limiting free water losses. By contrast, loop diuretics (e.g., fursemide) can increase water excretion and exacerbate polyuria. Hence, fursemide is the agent that does not improve nephrogenic DI.

894. (d) 1, 2 and 3
In type 1 diabetes, the primary defect is insulin deficiency from autoimmune pancreatic beta-cell destruction. Exogenous insulin is mandatory; oral hypoglycemic agents do not address this fundamental insulin requirement. Sulfonylureas, biguanides (metformin), and thiazolidinediones are used in type 2 diabetes to improve insulin secretion or sensitivity but are not appropriate as first-line treatments for type 1. Hence, none of them (1, 2, or 3) is recommended as first-line therapy in type 1 diabetes.

895. (d) Acetaminophen
High-dose acetylsalicylic acid (aspirin), phenylbutazone, and sulfinpyrazone can have a uricosuric effect, enhancing renal excretion of uric acid. Acetaminophen (paracetamol), however, does not promote uric acid excretion. It primarily acts as an analgesic and antipyretic, with minimal anti-inflammatory or uricosuric properties. At lower doses, aspirin can actually decrease uric acid excretion, but the question here highlights which agents do not raise excretion at all—acetaminophen fits that description.

NODIA

896. (a) Mental impairment, ophthalmoplegia and cerebellar ataxia
Wernicke's encephalopathy is a neurological emergency caused by thiamine (vitamin B_1) deficiency. The classic triad consists of mental status changes (often confusion), ophthalmoplegia (or nystagmus), and ataxia. Facial palsy and hearing loss are not typical features. Prompt recognition and administration of intravenous thiamine are critical to prevent progression to Korsakoff syndrome. This deficiency is frequently seen in alcohol use disorder but can also appear in other states of malnutrition.

897. (c) Kerion
A kerion is an inflammatory form of tinea capitis (fungal infection of the scalp) that presents as a swollen, boggy lesion often accompanied by hair loss (alopecia). It can look abscess-like, but is actually a hypersensitivity reaction to the fungal infection. Folliculitis decalvans is more chronic and not typically cystic and boggy. Hematoma is a localized collection of blood, and congenital syphilis has different clinical findings. Kerion best fits the described lesion.

898. (d) Tuberous sclerosis
Ash leaf macules are hypopigmented lesions seen in tuberous sclerosis complex. Under Wood's lamp (UV light), these macules become more apparent, aiding in diagnosis, especially if they are subtle on normal examination. Tuberous

cardiomyopathy, cyclophosphamide can produce hemorrhagic myocarditis at high doses, and mitoxantrone also possesses cardiotoxic potential. Azathioprine is an immunosuppressant often used in autoimmune disease or transplantation but is not particularly known for direct cardiotoxic effects. Among the listed options, azathioprine stands out as the except for significant cardiovascular toxicity.

914. (b) Achalasia of oesophagus
Achalasia is a motility disorder involving failure of the lower esophageal sphincter to relax and loss of normal peristalsis in the esophageal body. Patients often experience more trouble swallowing liquids (or liquids and solids equally) than solids alone, which contrasts with mechanical obstructions (e.g., carcinoma), where solids pose greater difficulty initially. In achalasia, the functional obstruction and aperistalsis produce progressive dysphagia that frequently starts with liquids.

915. (d) Urine examination
In a child with rheumatic heart disease who now has fever, splenomegaly, and pallor, infective endocarditis is a primary concern. Key investigations include ECG (may show conduction abnormalities), echocardiogram (to detect vegetations or valvular lesions), and blood cultures (to identify the causative organism). While urinalysis can sometimes reveal microscopic hematuria in endocarditis, it is not essential for the initial diagnosis. Therefore, urine examination is the least necessary among the listed options.

916. (a) Prolonged PR interval
Acute rheumatic fever with carditis often affects the conducting system, leading to first-degree AV block (a prolonged PR interval) as a common ECG finding. While other changes (e.g., ST-T wave abnormalities) may occur, the prolonged PR is characteristically noted in rheumatic carditis. Indeed, AV conduction prolongation is frequently encountered due to inflammation of the conduction tissue, making (a) the most likely ECG manifestation.

917. (c) Acute myeloid leukaemia
Chloroma (also called granulocytic sarcoma or myeloid sarcoma) is an extramedullary tumor of myeloblasts, typically associated with acute myeloid leukemia (AML). It derives its greenish appearance from the enzyme myeloperoxidase. Burkitt's lymphoma, acute lymphoblastic leukemia (ALL), and Ewing's sarcoma do not produce chloromas. When these lesions appear, they suggest extramedullary proliferation of myeloid blasts characteristic of AML.

918. (c) Atrial septal defect with mitral stenosis
Lutembacher's syndrome is a rare combination of congenital atrial septal defect (ASD) and acquired or congenital mitral stenosis. The mitral lesion results in elevated left atrial pressure, while the ASD provides a left-to-right shunt, leading to a distinctive hemodynamic picture. Other pairings (VSD with aortic stenosis, ruptured sinus of Valsalva, or a complete AV canal) refer to different congenital cardiac anomalies, not Lutembacher's syndrome.

919. (b) Betel
Research has identified bioactive compounds in betel leaves (Piper betle) that show promise in inducing apoptosis (programmed cell death) in certain cancer cell lines, including chronic myeloid leukemia cells. These findings underscore the potential of traditional medicinal plants in modern oncology. While substances from other leaves (Aloe, Bryophyllum, Mint) are also studied for health benefits, betel leaf extracts have garnered particular interest for their anticancer properties in recent scientific investigations targeting leukemia cells.

920. (b) Heart failure
Kerley B lines are short, thin horizontal lines at the lung periphery seen on chest X-rays, typically indicating interstitial edema associated with left-sided heart failure. They represent fluid in the interlobular septa of the lungs and are an important clue in diagnosing cardiac causes of pulmonary edema rather than purely respiratory causes. Their presence helps differentiate congestive heart failure from other potential conditions where fluid accumulates in the lungs.

Click Here to Buy book on Amazon

In Alzheimer's-type dementia, cognitive decline, memory loss, and apraxias reflect a deficiency in cholinergic transmission. Approved medications (e.g., donepezil, rivastigmine, galantamine) are acetylcholinesterase inhibitors, designed to increase synaptic acetylcholine and improve symptoms, at least modestly. Although other neurotransmitter pathways may be affected, the therapeutic approach focuses on slowing cholinergic depletion rather than targeting serotonin, histamine, or dopamine systems. By inhibiting the breakdown of acetylcholine, these drugs aim to improve or stabilize cognitive function.

907. (d) A-2 B-4 C-1 D-3

1. Atrio-ventricular (AV) block → Beta blockers (2) can depress AV nodal conduction.
2. Sinus tachycardia → Theophylline (4) stimulates the heart rate.
3. Wide QRS → Phenothiazines (1) can prolong conduction and widen QRS complexes.
4. QT interval prolongation → Terfenadine (3) is known for prolonging QT and risking torsades.

Thus, the correct matching is A→2, B→4, C→1, D→3.

908. (b) Severe rheumatoid arthritis

High-dose IVIG has established roles in autoimmune thrombocytopenia (ITP), Guillain-Barré syndrome, chronic inflammatory demyelinating polyneuropathy, Kawasaki disease, and sometimes in refractory dermatomyositis. Although rheumatoid arthritis is an autoimmune condition, standard therapies include disease-modifying antirheumatic drugs (DMARDs) and biologics (e.g., anti-TNF agents) rather than routine IVIG. Thus, among the listed options, severe rheumatoid arthritis is the one where IVIG is not a standard indication.

909. (a) Rheumatoid arthritis

Anti-CCP antibodies (anti-cyclic citrullinated peptide) are highly specific for rheumatoid arthritis (RA). They can appear early in the disease course and predict more aggressive joint involvement. While other autoimmune conditions (e.g., lupus, mixed connective tissue disease) have different serologic markers, anti-CCP remains a hallmark for diagnosing and assessing RA. Thus, in an initially undifferentiated arthritis, a positive anti-CCP test strongly supports the likelihood of RA rather than the alternative diagnoses.

910. (d) Phenoxy-benzamine followed by propranolol

In pheochromocytoma, hypertensive crises stem from excessive catecholamine release. First-line preoperative treatment is a long-acting nonselective α-blocker like phenoxybenzamine to control blood pressure by preventing α-adrenergic–mediated vasoconstriction. Only after adequate α-blockade is established can a β-blocker (e.g., propranolol) be added if needed to control tachycardia. Using a β-blocker first is contraindicated because unopposed α-adrenergic effects may precipitate a dangerous hypertensive crisis.

911. (b) Inhibition of membrane Na^+, K^+-ATPase

Digoxin and related cardiac glycosides inhibit the Na^+/K^+-ATPase pump in cardiac myocytes. This raises intracellular sodium, which in turn reduces the activity of the Na^+/Ca^{2+}-exchanger that normally exports calcium. As a result, intracellular calcium levels rise, enhancing actin-myosin cross-bridge formation and thus increasing contractility. Other listed mechanisms (opening calcium channels, myosin ATPase stimulation, or direct calcium release) are not the principal mode by which digitalis exerts its inotropic effect.

NODIA

912. (a) Magnesium sulphate

Torsades de pointes is a polymorphic ventricular tachycardia associated with prolonged QT interval. IV magnesium sulfate is the first-line acute treatment, even if the patient's serum magnesium does not appear low. It stabilizes cardiac myocytes' electrical activity and can terminate the arrhythmia. Other agents (isoproterenol, lidocaine, pacing) might be used in specific contexts, but magnesium is the definitive initial choice for torsades.

913. (c) Azathioprine

Certain anticancer agents are notorious for cardiotoxic side effects. Doxorubicin (Adriamycin) can cause dose-related

3. Advanced hepatic failure can result in reduced urea formation and hence hypouricaemia.

Hence the matches are: A (Myxoedema) → 4 (Pseudomyotonia), B (Kallmann) → 1 (Anosmia), C (Hyperaldosteronism) → 3 (Alkalosis), D (Hepatic failure) → 2 (Hypouricaemia).

870. (d) Duchenne muscular dystrophy : X-linked recessive

Duchenne muscular dystrophy (DMD) is caused by a mutation in the dystrophin gene on the X chromosome, producing an X-linked recessive inheritance pattern. Facioscapulohumeral dystrophy typically follows an autosomal dominant pattern, and limb-girdle dystrophies can be either autosomal dominant or recessive, depending on the subtype. Myotonic dystrophy (dystrophia myotonica) is generally autosomal dominant. Therefore, the only pairing that is unequivocally correct in the list is Duchenne muscular dystrophy as X-linked recessive.

871. (b) Montelukast

Status asthmaticus is a severe, acute asthma exacerbation. Rescue treatments include high-dose bronchodilators (β_2-agonists), intravenous corticosteroids, oxygen, and sometimes IV magnesium sulphate for refractory bronchospasm. Subcutaneous or IV adrenaline (epinephrine) can be used in life-threatening situations. Montelukast (a leukotriene receptor antagonist) is mainly for chronic asthma prophylaxis and has no immediate bronchodilator effect. Therefore, it is not helpful in the acute, life-threatening setting of status asthmaticus.

872. (b) 1 and 3 only

Hypokalemia (K^+ of 2.0 mEq/L) plus muscle weakness can result from:

1. Persistent vomiting: leads to secondary hyperaldosteronism and renal potassium loss.
2. Conn's syndrome (primary hyperaldosteronism): causes increased renal potassium excretion.
3. Acute intravascular hemolysis typically releases potassium from RBCs, potentially causing hyperkalemia, not hypo.
4. Rhabdomyolysis similarly releases intracellular potassium, raising serum levels.

Hence, only (1) persistent vomiting and (3) Conn's syndrome are correct.

873. (d) Tiredness and insomnia

Fibromyalgia typically presents with widespread musculoskeletal pain and specific tender points rather than pain without tenderness. The ESR is usually normal, and spontaneous complete resolution is not typical; rather, fibromyalgia often follows a chronic, relapsing course. One of the hallmark associated features is profound fatigue, poor sleep quality, and insomnia. Tiredness, nonrefreshing sleep, and insomnia are extremely common complaints in fibromyalgia patients.

874. (b) Hypertrophic cardiomyopathy

Digoxin is useful in certain supraventricular tachycardias (e.g., to slow AV conduction) and in atrial fibrillation for rate control, as well as in heart failure with reduced ejection fraction. However, in hypertrophic obstructive cardiomyopathy (HOCM), digoxin can worsen the outflow tract obstruction by increasing contractility. This is generally harmful, so digoxin is relatively contraindicated (unless there is concurrent AF with poor systolic function).

875. (a) IV atropine

Inferior wall MI often involves the right coronary artery, which can affect the SA and AV nodes, causing bradycardia. When the heart rate is under 50–60 with hypotension (or near-hypotension at BP 100/60), the first-line acute measure is intravenous atropine to block vagal influence and increase heart rate. If atropine fails, other options like IV dopamine infusion or temporary pacing can be considered. IV isoproterenol is rarely a first choice, and pacing is reserved if bradycardia persists.

876. (b) Low T_3, low T_4, high TSH

Primary hypothyroidism is characterized by inadequate production of thyroid hormones (T_4, T_3) by the thyroid gland. Because the feedback loop sees low circulating T_4/T_3, the pituitary responds by raising TSH levels in an attempt to

Downloaded from www.pdf.tube

921. (c) Acute myocardial infarction
Pulsus paradoxus is an exaggerated drop in systolic blood pressure during inspiration. It is notably associated with pericardial tamponade (due to impaired ventricular filling), acute severe asthma, and even massive pulmonary embolism because of significant swings in intrathoracic pressure or obstructed blood flow. In acute myocardial infarction, though hemodynamics can be severely compromised, pulsus paradoxus is not a recognized feature. Hence, among the listed conditions, AMI is the exception.

922. (c) Interstitial lung disease
The key findings—progressive dyspnea over years, dry cough, bibasilar crackles (Velcro crackles), clubbing, and cyanosis—strongly suggest a chronic fibrotic or restrictive lung pathology. Interstitial lung diseases (ILDs), which include pulmonary fibrosis, typically present this way. Bronchiectasis often has more productive cough and recurrent infections; pulmonary TB might feature constitutional symptoms and more localized findings; lung abscess commonly shows foul-smelling sputum or localized infection signs. The gradual progression with classic basal crepitations matches ILD.

923. (d) Rheumatoid arthritis
While tubercular or malignant effusions can have moderately low glucose, rheumatoid pleural effusions are notorious for markedly low glucose levels (sometimes <30 mg/dL). The inflammation and metabolic activity triggered by rheumatoid disease in the pleura severely reduce glucose levels. This distinguishing feature, along with high LDH and low pH, helps separate a rheumatoid effusion from other causes. Hence, among the listed choices, rheumatoid arthritis is most classically associated with very low pleural fluid glucose.

924. (c) Pancreatic insufficiency
Kartagener's syndrome is a subset of primary ciliary dyskinesia characterized by a triad: sinusitis, bronchiectasis, and situs inversus. Defects in the dynein arms of cilia lead to poor mucociliary clearance. Although this syndrome affects respiratory tract cilia extensively and includes organ reversal (situs inversus), it does not typically involve pancreatic insufficiency. Pancreatic insufficiency is more commonly associated with conditions like cystic fibrosis. Thus, pancreatic insufficiency is not a feature of Kartagener's syndrome.

925. (b) Normal pulmonary arterial pressure
ARDS, or non-cardiogenic pulmonary edema, arises from increased permeability in the alveolar-capillary membrane, often due to severe inflammation or injury. Unlike cardiogenic pulmonary edema (resulting from left ventricular failure), ARDS generally does not elevate pulmonary capillary wedge pressure or pulmonary arterial pressure in the early stages. Instead, the problem lies in the lung parenchyma itself. This contrast helps distinguish ARDS (normal or only slightly raised pulmonary pressures) from fluid overload caused by heart failure (elevated pulmonary pressures).

NODIA

926. (d) Vital capacity is increased
In COPD (including chronic bronchitis and emphysema), airflow obstruction impairs expiration, leading to air trapping and hyperinflation. Consequently, residual volume often rises and total lung capacity can be normal or even elevated. The respiratory flow rates (FEV_1, FEV_1/FVC ratio) are definitely decreased. However, vital capacity (the maximum volume of air exhaled after a full inspiration) typically decreases or remains normal in advanced disease due to trapped air and reduced elastic recoil, not increases, making (d) incorrect.

927. (b) Amiodarone
Eosinophilic pneumonia can arise from a variety of drugs, commonly featuring a hypersensitivity mechanism. Nitrofurantoin, sulfonamides, and even NSAIDs have documented associations with drug-induced eosinophilic lung infiltrates. Amiodarone, while capable of causing severe pulmonary toxicity (typically a chronic interstitial pneumonitis or organizing pneumonia), is not classically known for triggering eosinophilic pneumonia. Hence it is the exception among this set. Clinically, amiodarone-induced lung disease often presents with a different pathological pattern and mechanism.

fewer organisms, localized lesions, and strong cell-mediated immunity. Lepromatous leprosy can disseminate widely (including bloodstream spread), whereas tuberculoid typically remains localized with well-demarcated anesthetic patches. Hence, blood-borne spread from the dermis throughout the body distinguishes lepromatous from tuberculoid disease.

958. (d) Behcet's syndrome
Behçet's syndrome classically presents with recurrent oral (and often genital) ulcers, along with systemic features including arthritis, uveitis, and skin lesions. The ulcers are typically painful, distinguishing them from some other conditions. Reiter's syndrome (reactive arthritis) involves the triad of arthritis, urethritis, and conjunctivitis rather than painful orogenital ulcers. Gonorrhea and syphilis have different clinical courses and do not typically cause a pattern of recurrent painful mouth and genital ulcers with arthritis.

959. (a) Antihistone antibodies
Drug-induced lupus erythematosus (commonly due to procainamide, hydralazine, certain anti-TNF agents, etc.) is strongly associated with high titers of antihistone antibodies. While idiopathic systemic lupus erythematosus (SLE) more often has anti-dsDNA and anti-Smith antibodies, the hallmark of the drug-induced variant is the presence of anti-histone. Anti-Ro (SSA) and Anti-La (SSB) are frequently seen in Sjögren's syndrome or SLE subsets, but not classically for drug-induced lupus.

960. (c) Diffuse proliferative
Among the ISN/RPS classifications of lupus nephritis, Class IV (diffuse proliferative lupus nephritis) is both the most severe and most common form. It features widespread immune complex deposition and inflammation involving $\geq$50% of glomeruli. It typically manifests with hematuria, proteinuria, hypertension, and can rapidly lead to renal insufficiency if untreated. While mesangial (Class II), focal proliferative (Class III), and membranous (Class V) forms also occur, diffuse proliferative (Class IV) is the predominant pattern.

961. (d) Electroconvulsive therapy
Obsessive-compulsive disorder (OCD) responds well to higher-dose SSRIs (e.g., fluoxetine) or tricyclic antidepressants (notably clomipramine), as well as cognitive-behavioral therapy with exposure and response prevention. ECT (electroconvulsive therapy) is occasionally used in severe, treatment-resistant depression or certain psychotic disorders, but it is not a standard or common intervention for OCD. Thus, ECT is the least likely and is considered except among the otherwise valid OCD treatment approaches.

962. (d) Weight gain
Bulimia nervosa is characterized by recurrent episodes of binge eating followed by compensatory behaviors such as self-induced vomiting, use of laxatives, or extreme dieting. While individuals with bulimia may be normal weight or slightly overweight, significant or sustained weight gain is not a defining feature (unlike the possibility of weight gain in binge-eating disorder without purging). The critical elements are binge eating, sense of loss of control, and compensatory measures—not persistent weight gain.

963. (c) Obsessive-compulsive disorder
Obsessive-compulsive disorder (OCD) centers around intrusive thoughts (obsessions) and repetitive behaviors or mental acts (compulsions). Patients often fear contamination or harm if rituals are not performed, leading to checking, counting, washing, or ordering routines. Panic attacks, agoraphobia, or generalized anxiety disorder might share some anxiety components but do not typically manifest with such specific, ritualistic behaviors. Hence, repeated checking and fear of contamination strongly point to OCD.

964. (a) Inflammation at the site of tendinous or ligamentous insertion into bone
Enthesitis is a hallmark feature in spondyloarthropathies (e.g., ankylosing spondylitis, psoriatic arthritis). It refers to inflammation at the site where a tendon, ligament, or fascia attaches to bone—commonly the Achilles tendon insertion at the calcaneus

Click Here to Buy book on Amazon

A posterior communicating artery (PCoA) aneurysm frequently compresses the oculomotor nerve (cranial nerve III). Clinically, this can manifest as ptosis (drooping eyelid), a down and out deviation of the eye, and a dilated pupil (if parasympathetic fibers are affected). Facial (VII), optic (II), and trigeminal (V) nerves are less commonly impacted by PCoA aneurysms. Thus, CN III palsy remains the hallmark when posterior communicating artery aneurysms exert pressure on cranial nerve structures.

936. (a) Gentamycin
Idiopathic Intracranial Hypertension (pseudotumor cerebri) is commonly linked with medications such as tetracyclines, excess Vitamin A/retinoids, and sometimes oral contraceptive pills. These agents can elevate intracranial pressure through various mechanisms. Gentamycin, an aminoglycoside antibiotic, is not classically implicated in raising intracranial pressure. Rather, gentamycin can cause ototoxicity and nephrotoxicity, but does not typically trigger pseudotumor cerebri.

937. (c) Cluster headache
Cluster headache is often characterized by brief but extremely intense unilateral headaches, commonly behind or around one eye, with autonomic symptoms such as lacrimation, nasal congestion, and redness of the eye. Attacks frequently occur in clusters (1–3 times daily) for weeks, often waking the patient from sleep. Migraine typically lasts longer (4–72 hours) and can involve photophobia/nausea, tension headache is usually milder and bilateral, and a brain tumor headache rarely follows such a consistent, cyclical pattern.

938. (a) Facio-scapulo-humeral dystrophy
Duchenne's muscular dystrophy and myotonic dystrophy frequently present with cardiomyopathy or conduction defects. Friedreich's ataxia also shows notable cardiac involvement, typically hypertrophic cardiomyopathy. Facioscapulohumeral dystrophy, in contrast, primarily affects skeletal muscles of the face, scapular stabilizers, and upper arms with relatively little direct cardiac involvement. Hence, among the options, it is the condition where clinically significant heart problems are not typically a feature.

939. (d) Barbiturates
Cocaine and amphetamines can cause intense vasoconstriction and sometimes accelerated atherosclerosis or vasospasm, greatly elevating the risk of ischemic stroke. Oral contraceptives, especially those with higher estrogen levels, carry an increased thrombotic risk. In contrast, barbiturates are not typically linked with causing ischemic stroke, although they can depress central nervous system activity and affect respiration. Thus, among the listed agents, barbiturates stand out as not commonly implicated in ischemic stroke.

940. (d) Tuberculous meningitis
A classic clue is the cobweb or spider-web pellicle formation in the CSF upon standing, along with lymphocytic predominance, elevated protein, and moderately low sugar. These findings are highly suggestive of tuberculous meningitis rather than acute bacterial (meningococcal) meningitis or subarachnoid hemorrhage. Cryptococcal meningitis also presents with lymphocytes and raised protein, but the cobweb clot and the high cell count (1250) leans strongly toward TB meningitis.

941. (a) Vascular endothelium
von Willebrand factor (vWF) is chiefly produced by the endothelial cells lining blood vessels (and also by megakaryocytes). It plays a vital role in platelet adhesion and carrying factor VIII. The liver is the site for many clotting factors but not the primary place for vWF production, and macrophages or eosinophils are not vWF-producing cells. This endothelial origin is key to understanding certain bleeding disorders, such as von Willebrand disease.

942. (a) LAP (Leukocyte alkaline phosphatase)
In a leukemoid reaction (an extreme reactive leukocytosis), the leukocyte alkaline phosphatase (LAP) score is typically high, reflecting robust enzyme activity in reactive neutrophils. In chronic myeloid leukemia, the LAP score is usually low because malignant granulocytes often lack normal enzyme activity.

Downloaded from www.pdf.tube

(Heberden's nodes). Ankylosing spondylitis primarily involves the spine and sacroiliac joints. Tenosynovitis alone would not explain the classic ulnar deviation deformity.

972. (b) 1, 2 and 4
Upper motor neuron (UMN) lesions produce spasticity (increased tone) and hyperreflexia due to loss of inhibitory pathways (statements 1 and 2). Patients also exhibit weakness in affected muscles (statement 4). The plantar response typically becomes extensor (Babinski sign) rather than absent. Therefore, statement 3 is incorrect. This pattern of increased tone, brisk reflexes, and Babinski sign differentiates UMN involvement from lower motor neuron lesions (which show decreased tone and hyperreflexia).

973. (c) 1, 3 and 4.
In iron deficiency anemia, serum iron levels typically drop below ~30 μg/dL (1). TIBC (Total Iron Binding Capacity) usually rises above 400 μg/dL, so statement 2 (less than 400) is incorrect. Percentage transferrin saturation often falls to 10% or below (3). Serum ferritin below ~30 ng/mL (4) is also a key laboratory hallmark confirming depleted iron stores. Thus, statements 1, 3, and 4 align with classical findings of IDA.

974. (b) 1, 2 and 4
Crohn's disease can be accompanied by various extra intestinal features. Amyloidosis (secondary) can arise from chronic inflammation, though it is less common. Pyoderma gangrenous, while more frequent in ulcerative colitis, can also appear in Crohn's. Certain arthropathies (particularly large-joint types) may parallel intestinal flare-ups. Primary sclerosing cholangitis is more strongly linked to ulcerative colitis rather than Crohn's. Thus, 1, 2, and 4 are recognized extra intestinal manifestations that can be seen in Crohn's disease, although their exact correlation with disease flares can vary.

975. (a) 1, 2 and 3
Cystic fibrosis (CF) is an autosomal recessive disease primarily affecting exocrine glands. The lungs exhibit chronic infections and bronchiectasis. The pancreas undergoes exocrine insufficiency due to thick secretions obstructing pancreatic ducts. Liver involvement (focal biliary cirrhosis or cholestasis) also occurs due to similarly inspissated secretions in bile ducts. Although CF can affect multiple systems, it does not typically cause direct renal (kidney) dysfunction in the same classical manner. Thus, lungs, liver, and pancreas are the commonly affected organ systems.

976. (a) 1, 2 and 3
Felty's syndrome is a triad of rheumatoid arthritis, neutropenia (leading to overall leukopenia), and splenomegaly. Patients can present with frequent infections (due to low white cell count) and have advanced erosive joint disease from longstanding RA. Although splenectomy may help in select refractory cases (by removing a site of WBC sequestration), it does not invariably always correct the blood abnormalities. Therefore, statement 4 is inaccurate.

977. (c) 2 and 3
Excess prolactin depresses GnRH secretion, resulting in hypo gonadotropic hypogonadism—characterized by low gonadotropins (LH, FSH) and low estrogen/testosterone levels. In women, this frequently manifests as oligomenorrhea or amenorrhea. Men may present with reduced libido and infertility. Heavy menstruation is not a typical finding; in fact, flow is often reduced or absent. Hyper gonadotropic hypogonadism (high gonadotropins, low sex steroids) does not occur in hyperproteinemia.

978. (c) serum ferritin value
Serum ferritin reflects body iron stores and is the most sensitive single indicator for diagnosing iron deficiency at an early stage. Hemoglobin levels alone may remain normal until iron depletion becomes more severe. Serum iron and transferrin saturation can fluctuate with diet or diurnal variations. Ferritin, however, typically falls early in iron deficiency. Very low ferritin levels are highly specific for depleted

NODIA

Subacute lymphocytic (painless) thyroiditis often presents with a transient hyperthyroid phase followed by possible hypothyroid phase. Because the hyperthyroidism typically results from the passive release of preformed thyroid hormones (rather than sustained overproduction), antithyroid drugs (e.g., PTU) or radioactive iodine are usually not indicated. Beta blockers help alleviate adrenergic symptoms (tachycardia, tremor, anxiety) until hormone levels normalize. More invasive options like surgery are rarely needed in this self-limiting condition.

951. (a) Episodic diarrhea
Pheochromocytomas are catecholamine-secreting tumors that typically cause paroxysms of hypertension, headaches, palpitations, and sweating. While flushing can occur, the hallmark is more commonly pallor and sweating—though some patients do note transient flushing. Episodic diarrhea, however, is more commonly associated with conditions like carcinoid syndrome. Thus, among these listed symptoms, episodic diarrhea is least characteristic of pheochromocytoma and is the except.

952. (d) Presence of monosodium urate crystals in synovial fluid
Gout is definitively diagnosed by finding needle-shaped, negatively birefringent monosodium urate (MSU) crystals in joint (synovial) fluid under polarized light. While high serum uric acid supports the clinical suspicion, it is not exclusively diagnostic because levels may be normal during acute attacks or elevated in asymptomatic individuals. Calcium pyrophosphate crystals are linked with pseudogout, not gout. Hence, MSU crystals in the joint fluid provide the most specific evidence of gout.

953. (c) Renal tubular acidosis
An increased anion gap typically occurs in metabolic acidoses where unmeasured anions (e.g., ketones, lactate) accumulate—such as diabetic ketoacidosis, lactic acidosis, and starvation ketosis. Renal tubular acidosis generally produces a hyperchloremic (normal anion gap) metabolic acidosis, as the main problem is impaired acid excretion or bicarbonate reabsorption, not an accumulation of organic acids. Thus, RTA stands out as the exception among these conditions.

954. (c) High plasma osmolality
SIADH causes excessive ADH release, leading to water retention, dilutional hyponatremia (low serum sodium), and reduced plasma osmolality. Plasma urea is often low or low-normal, and urinary sodium is typically inappropriately high ($\geq$40 mEq/L) since the body tries to excrete excess water. A high plasma osmolality would contradict the hallmark of SIADH, making that statement incorrect. Thus, among the listed features, high plasma osmolality is not correct.

955. (c) It is a congenital condition
Vitiligo is an acquired depigmentation disorder characterized by the loss of melanocytes, leading to well-demarcated, often symmetrical hypopigmented or depigmented macules. Although it can appear at any age, it is not usually congenital in nature. Mechanical or environmental triggers (like trauma, sunburn, or stress) can precipitate new lesions, and focal depigmented patches are observed. Hence, describing it as a congenital condition is the incorrect statement among these options.

956. (d) Lichen planus
Porphyria cutanea tarda and variegate porphyria can cause photosensitive blistering eruptions on sun-exposed skin, while dermatitis herpetiformis presents with intensely pruritic vesicles and bullae typically on extensor surfaces. Lichen planus, however, is best known for pruritic, purple, polygonal, planar papules and plaques (the 5 Ps). While some rare variants of lichen planus may have bullous components, the classic presentation does not predominantly feature true bullous lesions.

957. (c) Blood-borne spread from the dermis throughout the body
Lepromatous leprosy is the more diffuse, multibacillary form of Hansen's disease, characterized by large numbers of Mycobacterium leprae and high infectivity. In contrast, tuberculoid leprosy presents with

Click Here to Buy book on Amazon

LCA and MPO are more general markers, and TRAP is associated with hairy cell leukemia. The LAP test thus remains the classic quick differentiator between CML and a benign leukemoid reaction.

943. (d) Imatinib
Imatinib mesylate (a tyrosine kinase inhibitor) revolutionized the treatment of CML by specifically targeting the BCR-ABL fusion protein produced by the Philadelphia chromosome. Older treatments like hydroxyurea, busulfan, or interferon-α might still be used in specific scenarios, but they are not first-line. Imatinib's mechanism, blocking the abnormal tyrosine kinase activity, allows for more precise disease control and better long-term outcomes.

944. (d) Splenomegaly
Aplastic anemia presents with a hypocellular marrow (often <25% hematopoietic cells), producing normal-looking but reduced cells (pancytopenia), including normocytic normochromic RBCs. Patients do not typically manifest splenomegaly in classical aplastic anemia. Significant splenomegaly instead suggests alternative pathologies (e.g., myelofibrosis, extramedullary hematopoiesis, or hematologic malignancies). Hence splenomegaly is inconsistent with an otherwise empty marrow picture of aplastic anemia.

945. (a) Protamine sulphate
Protamine sulphate is the specific antidote for reversing the anticoagulant effects of heparin. It binds to heparin and neutralizes its activity, rapidly correcting an elevated aPTT. Vitamin K is used for warfarin reversal, whereas whole blood or FFP could be supportive but are not first-line for direct heparin neutralization. Thus, in a patient experiencing significant hemorrhage due to heparin, protamine sulphate is the clear first choice.

946. (d) Hypersplenism
Thrombocytosis (elevated platelet count) is commonly encountered in myeloproliferative disorders such as chronic myeloid leukemia, essential thrombocythemia, and myelofibrosis. Hypersplenism, by contrast, often leads to sequestration of platelets in the spleen, causing thrombocytopenia rather than thrombocytosis. Hence, among the listed choices, hypersplenism is the condition typically associated with a lower platelet count, making it the exception here.

947. (d) Increased osmotic fragility
β-thalassemia major involves reduced or absent β-globin chain synthesis, leading to severe hemolytic anemia, extramedullary hematopoiesis, and distinctive skeletal changes (bone marrow expansion causing the hair-on-end skull appearance). Splenomegaly is also common from extramedullary hematopoiesis and red cell turnover. However, increased osmotic fragility is typically associated with hereditary spherocytosis, not β-thalassemia. In thalassemia, the RBC defect is different, so osmotic fragility is not markedly raised.

NODIA

948. (d) Addison's disease
Carpal Tunnel Syndrome (CTS) can be precipitated by conditions that cause tissue swelling, fluid retention, or changes in soft tissues around the wrist—common culprits include diabetes, hypothyroidism, rheumatoid arthritis, and acromegaly. Addison's disease (primary adrenal insufficiency) does not typically produce the localized synovial or tissue changes in the carpal tunnel that lead to median nerve compression. Consequently, Addison's stands out as not commonly linked with CTS among the listed conditions.

949. (a) Cerebral edema
Severe or prolonged hypoglycemia can cause neuronal injury. If the patient's glucose is corrected rapidly but consciousness fails to return, one explanation is cerebral edema resulting from osmotic shifts or direct neuronal damage. This is sometimes seen in young patients with Type 1 diabetes but can occur in adults under certain circumstances as well. While other conditions (like a post-ictal state or hemorrhage) could delay recovery, acute cerebral edema or hypoglycemic brain injury is the classic teaching point here.

950. (d) Beta blockers

or plantar fascia origin. This is distinct from synovitis (inflammation of synovial membrane), bursitis (inflammation of fluid-filled sacs), or crepitus sensations. Thus (a) describes enthesitis precisely.

965. (d) Vertebra

Osteoporosis commonly presents with fragility fractures, and the vertebral (spinal) compression fracture is the single most frequent fracture pattern, especially in older adults. Fractures of the hip (proximal femur) and distal radius (Colles' fracture) are also very common, but statistically, vertebral compression fractures often occur earlier and more frequently. These fractures can result in loss of height, kyphosis (dowager's hump), and chronic back pain.

966. (a) Alport syndrome

Alport syndrome is an inherited disorder (often X-linked) characterized by progressive nephropathy, usually presenting with hematuria in childhood or adolescence, leading to chronic kidney disease. Sensorineural deafness is another hallmark feature, and affected family members often show a similar pattern. Henoch-Schönlein purpura and Wegener's granulomatosis (now called GPA) typically have different clinical and serological presentations, while lupus involves multi-system autoimmune findings. Alport syndrome best fits the triad of hereditary renal failure, hematuria, and hearing loss.

967. (c) Multiple sclerosis

Internuclear ophthalmoplegia (INO) results from a lesion in the medial longitudinal fasciculus (MLF), commonly in the pons or midbrain. In younger patients, multiple sclerosis (MS)—a demyelinating condition—frequently causes bilateral or unilateral INO. While older patients can develop INO from stroke or other vascular pathologies, MS remains the prime association in younger adults. Congenital nystagmus, spinocerebellar degenerations, or progressive supranuclear palsy do not typically present with this classic MLF lesion-based eye movement disorder.

968. (d) Keshan disease

Wilson'sdisease(hepatolenticulardegeneration), Menkes' kinky hair syndrome, and Indian Childhood Cirrhosis all involve disordered copper metabolism—either accumulation (Wilson's, ICC) or defective transport (Menkes'). Keshan disease, by contrast, is linked primarily to selenium deficiency and not copper. Keshan disease causes a cardiomyopathy often endemic in certain regions with low selenium content in soil. Thus, of the conditions listed, Keshan disease is unrelated to copper metabolic dysfunction.

969. (a) 1 only

(1) Most T_3 in circulation is indeed bound to proteins (TBG, albumin). (2) Typically, only ~20% of T_3 is directly secreted by the thyroid; the rest is peripherally converted from T_4, making 50% inaccurate. (3) TSH is actually very sensitive for detecting primary hypothyroidism, so statement 3 is incorrect. (4) While maternal T_4 can cross the placenta to some degree, the fetal thyroid axis develops relative independence by mid-gestation, so (4) is not strictly true in the sense stated.

970. (b) Atrial systole

The jugular venous pulse (JVP) waveform has several components:

1. a wave: caused by atrial contraction (atrial systole), which briefly impedes venous return and produces a visible rise.
2. c wave: due to bulging of the tricuspid valve during right ventricular contraction.
3. v wave: from venous filling of the right atrium against a closed tricuspid valve.

Hence, the a wave specifically reflects atrial systole, not relaxation or diastole.

971. (c) Rheumatoid arthritis

Rheumatoid arthritis (RA) is a chronic inflammatory disorder that typically presents with symmetrical joint involvement, most often in the small joints of the hands and feet. Morning stiffness improving later in the day, along with characteristic deformities such as ulnar deviation at the metacarpophalangeal joints, strongly suggests RA. Osteoarthritis more often affects distal interphalangeal joints

Downloaded from www.pdf.tube

986. (c) Granulomatous thyroiditis
Also known as De Quervain's thyroiditis or subacute thyroiditis, granulomatous thyroiditis commonly follows a viral infection. Patients present with a painful, tender thyroid gland, fever, and elevated inflammatory markers. Thyroid autoantibodies are typically absent or not significantly elevated, distinguishing it from autoimmune thyroiditis (Hashimoto's). Riedel's thyroiditis has a woody hard gland and is much less common. Thyroid lymphoma is rare and usually develops in a background of longstanding autoimmune thyroiditis.

987. (d) Down's syndrome
An inborn error of metabolism refers to a genetic defect in an enzyme or metabolic pathway (e.g., Tay-Sachs, Maple Syrup Urine Disease, PKU). Neural tube defects are malformations often linked to inadequate folate or multifactorial etiologies, but are not typically classified as metabolic errors. Down's syndrome (Trisomy 21) is a chromosomal abnormality, not a metabolic disorder. Among these choices, Down's is most clearly not an inborn error of metabolism.

988. (d) Erythrocytosis
Autosomal Dominant Polycystic Kidney Disease (ADPKD) frequently manifests with flank pain, hematuria, and hypertension, the latter often arising from cyst-induced ischemia of renal tissue leading to renin-mediated pathways. Progressive cyst development reduces functioning nephrons and can lead to renal failure over time. Erythrocytosis (excess RBC production) is not a typical feature; in fact, chronic kidney disease more commonly leads to anemia due to decreased erythropoietin production. Therefore, erythrocytosis is the exception in this list.

989. (a) Hereditary spherocytosis
Recurrent abdominal pain and jaundice along with reticulocytosis and hyperbilirubinemia strongly suggest hemolysis as an underlying cause. Hereditary spherocytosis is characterized by defective RBC membranes that lead to hemolysis, elevated bilirubin, and compensatory reticulocytosis. Mirizzi's syndrome, choledochal cyst, and sclerosing cholangitis are structural or inflammatory hepatobiliary conditions that do not typically cause reticulocytosis. Consequently, hereditary spherocytosis is the most fitting diagnosis among the options.

990. (a) 2 and 3
Hemophilia A (Factor VIII deficiency) and Hemophilia B (Factor IX deficiency) produce a similar clinical picture of a coagulation defect, though they are caused by different missing clotting factors. Both are X-linked recessive conditions, typically manifesting in males but transmitted by carrier females (who are usually asymptomatic). Statement (1), calling them variants of the same disease process, can be debated, since they are distinct deficiencies. Statement (4) is generally incorrect, because classical hemophilia in females is exceedingly rare.

991. (a) Psychoneurosis
Psychoses are major mental disorders characterized by a loss of contact with reality, evident in conditions like schizophrenia, mania, and delusional (paranoid) disorders. Psychoneurosis (often called neurosis) involves less severe psychiatric disturbances—such as anxiety disorders or phobias—where insight and reality testing are largely preserved. Thus, schizophrenia, manic-depressive (bipolar) psychosis, and paranoia are classical psychotic disorders, whereas psychoneurosis is non-psychotic by definition.

992. (b) Hidradenitis suppurativa
Hidradenitis suppurativa is a chronic inflammatory condition primarily involving the apocrine sweat glands in areas such as the axilla, groin, and under the breasts. It presents with recurrent, painful nodules that may suppurate and form sinus tracts, leading to scar formation. Risk factors include obesity, smoking, and hormonal influences. Lipodystrophy involves abnormal fat distribution, Xeroderma pigmentosum is a genetic photosensitivity disorder, and Pyoderma gangrenosum is a neutrophilic dermatosis. The chronic scarring nodules under the arm are classic for hidradenitis suppurativa.

NODIA

iron stores, although ferritin can be elevated by inflammatory conditions.

979. (b) 1 and 3 only
Haemophilia (commonly A or B) is an X-linked recessive hereditary disorder characterized by deficiency of clotting factors (VIII or IX). Males usually manifest severe bleeding tendencies, while female carriers may occasionally have low factor levels and mild symptoms due to lyonization (X-inactivation). There is no recognized higher incidence among Asians in particular; it is distributed worldwide. Hence statements 1 and 3 are correct, but 2 is not.

980. (a) Eye complications (Iritis/Uveitis)
Crohn's disease can have many extra intestinal manifestations, including ocular complications such as iritis and uveitis. These inflammatory eye changes can flare in parallel with Crohn's intestinal disease activity. Renal calculi are more a result of malabsorption and hyper oxaluria rather than disease activity. Primary sclerosing cholangitis is more typically linked to ulcerative colitis. Chronic active hepatitis does not reliably parallel Crohn's flares. Hence, iritis/uveitis is most closely correlated with active disease.

981. (c) 1, 3 and 4
The MELD score (commonly used for prioritizing liver transplant candidates) is calculated primarily from three lab values: serum bilirubin, serum creatinine, and INR. Serum albumin, while used in the Child-Pugh score, is not included in the MELD formula. Therefore, among the listed variables, 1 (bilirubin), 3 (creatinine), and 4 (INR) are correct for MELD.

982. (b) 1, 2 and 4
True (central) precocious puberty arises from early hypothalamic–pituitary–gonadal (GnRH) activation. Constitutional early puberty (1) and CNS pathologies such as tubercular encephalitis (2) can trigger GnRH release. Severe primary hypothyroidism (4) may sometimes mimic GnRH-dependent mechanisms (via increased TRH possibly affecting gonadotropin secretion), although it is a rarer pathway. By contrast, McCune-Albright syndrome (3) is classically gonadotropin-independent (peripheral) precocious puberty due to autonomous hormone production. Hence, 1, 2, and 4 best fit the category of GnRH-dependent.

983. (d) IV antibiotics
Thyrotoxic crisis (thyroid storm) management requires aggressive treatment with intravenous fluids to maintain hemodynamic stability, IV beta-blockers (like propranolol) to control sympathetic overdrive, and corticosteroids (such as hydrocortisone) to inhibit peripheral conversion of T4 to T3 and manage possible relative adrenal insufficiency. Specific antithyroid drugs (e.g., propylthiouracil or methimazole) are also critical. IV antibiotics, however, are not routinely indicated unless there is a coexisting infection. Hence, IV antibiotics is the outlier among the listed options.

984. (c) Cultures often show Gram positive Staphylococci
Pyoderma gangrenosum is a neutrophilic dermatosis that typically presents with painful ulcers having violaceous, undermined borders. It is frequently associated with systemic disorders such as inflammatory bowel disease or arthritis, reflecting an altered immune reactivity. Although its name implies a bacterial cause, most lesions are either sterile or do not show the organisms typically grown in simple pyogenic infections. It usually responds favorably to immunosuppressive therapy (e.g., steroids). Therefore, saying cultures often reveal staphylococci is incorrect.

985. (d) It involves pineal gland
Multiple Endocrine Neoplasia type 1 (MEN-1) is classically characterized by tumors or hyperplasias of the parathyroid glands, endocrine pancreas (e.g. gastrinomas, insulinomas), and pituitary gland (the 3 Ps). It does not typically involve the pineal gland. Patients often present with hyperparathyroidism, peptic ulcers from gastrin overproduction, and pituitary adenomas. Genetic testing can reveal a mutation in the MEN1 gene (menin). The pineal gland is not part of the traditional MEN-1 tumor triad, hence (d) is incorrect.

Click Here to Buy book on Amazon

928. (c) Carcinoma of head of the pancreas
Markedly elevated conjugated bilirubin, high alkaline phosphatase, clay-colored stools, and absent urobilinogen point to obstructive jaundice. The pain in the right upper quadrant and progressive jaundice with pruritus further suggest a mechanical blockage in the biliary pathway. Carcinoma of the head of the pancreas often compresses the common bile duct externally, producing such a presentation (painless or mildly painful obstructive jaundice). The normal-ish SGPT but highly elevated alkaline phosphatase fits a cholestatic pattern typical of extrahepatic obstruction.

929. (b) Noncirrhotic portal fibrosis
Noncirrhotic portal fibrosis (NCPF), sometimes called idiopathic portal fibrosis, is characterized by portal hypertension, splenomegaly, and variceal bleeding without evidence of cirrhosis or significant liver dysfunction. Patients typically have normal liver function tests and do not show ascites early on. By contrast, extrahepatic portal venous obstruction is more common in younger children, whereas cirrhosis would often present with abnormal LFTs and possibly ascites. Hence NCPF best explains splenomegaly, varices, normal LFTs, and recurrent hematemesis.

930. (c) Type 4 Renal tubular acidosis
Type 4 RTA is associated with decreased aldosterone production or action, leading to decreased potassium excretion in the distal nephron and resulting in hyperkalemia. This contrasts with Type 1 (distal) and Type 2 (proximal) RTA, which frequently feature hypokalemia rather than hyperkalemia. Bartter's syndrome similarly presents with hypokalemia due to defects in the thick ascending limb of the loop of Henle. Therefore, among the listed conditions, only Type 4 RTA characteristically shows elevated serum potassium levels.

931. (c) Early onset of renal failure
Membranous glomerulopathy (or membranous nephropathy) is a common cause of nephrotic syndrome in adults, often presenting with heavy proteinuria and hyperlipidemia. Many patients display some response to immunosuppressive therapy or steroids, though not as striking as in minimal change disease. Typically, it progresses gradually, and renal failure (if it occurs) often arises late in the disease course. Hence, early onset of renal failure is not a typical feature, making option (c) the exception.

932. (b) Uncontrolled Hypertension
Renal biopsy is an invasive procedure carrying the risk of bleeding. Uncontrolled hypertension significantly heightens this risk, as elevated arterial pressure can lead to hemorrhage at the biopsy site. Generally, blood pressure must be stabilized before attempting a biopsy. Acute renal failure, nephritic syndrome, or isolated hematuria are not absolute contra indications as long as blood pressure and coagulation parameters are under control. Therefore, the key contraindication among the given options is uncontrolled high blood pressure.

933. (d) Mesial temporal lobe sclerosis
New-onset seizures in older adults often arise from cerebrovascular accidents, brain tumors, or age-related degenerative changes. Mesial temporal lobe (hippocampal) sclerosis tends to be a more frequent cause of complex partial seizures in younger or middle-aged patients, often linked to intractable temporal lobe epilepsy. While it can occur in older individuals, it is far less common as a cause of new-onset seizures in those over 60 than the other etiologies listed, so it is the except.

934. (a) Lymphocytic pleocytosis, normal glucose level, normal or slightly elevated protein level
Viral meningitis (aseptic meningitis) typically shows a lymphocyte-predominant pleocytosis in the cerebrospinal fluid. Glucose levels are usually normal or near-normal, and protein levels may be normal or mildly elevated. In contrast, bacterial meningitis more often displays neutrophilic pleocytosis with low glucose and significantly increased protein. Fungal or tubercular meningitis can also reduce glucose levels more prominently. Hence the classic CSF profile for viral meningitis, especially after 48 hours, fits option (a).

935. (a) Occulomotor

NODIA

993. (d) Rhinophyma

Actinic (solar) keratosis is a precursor to squamous cell carcinoma. Bowen's disease (squamous cell carcinoma in situ) can progress to invasive SCC. Giant hairy naevi can undergo malignant transformation (most concerning for melanoma). In contrast, rhinophyma is a severe form of rosacea affecting the nose, characterized by nodular thickening and hyperplasia of the sebaceous glands. Although disfiguring, rhinophyma is not considered a premalignant lesion. The focus in rhinophyma is largely cosmetic and functional rather than oncologic risk.

994. (d) LSD

Lysergic Acid Diethylamide (LSD) primarily causes intense psychoactive experiences (hallucinations) without significant physical dependence. While psychological habituation can occur in some users, LSD does not cause classic withdrawal or craving syndromes. In contrast, substances such as barbiturates, heroin, and even cannabis can produce dependence or withdrawal symptoms. LSD's risk profile lies more in acute perceptual and psychological effects rather than in establishing a physical dependence cycle.

995. (b) Hyperkalemia

In primary hyperaldosteronism (Conn's syndrome), excessive aldosterone drives sodium retention (leading to hypertension) and potassium excretion (causing hypokalemia). Hypokalemia can be severe enough to cause muscle weakness or periodic paralysis. Headaches are common from elevated blood pressure, so frontal headaches can be a complaint. Hyperkalemia, however, contradicts the pathophysiology, which is characterized by excessive renal potassium loss. Therefore, among the listed options, hyperkalemia is the finding that does not match primary hyperaldosteronism.

996. (d) Chlorine demand

Horrock's apparatus is a field-testing kit designed to determine the amount of chlorine (e.g., from bleaching powder) needed to disinfect a given volume of water—thereby measuring the chlorine demand. The water's chlorine demand is the quantity of chlorine consumed by organic and inorganic impurities before a residual disinfectant level remains. Knowledge of this demand is crucial for ensuring effective water treatment while avoiding under- or overdosing of chlorine.

NODIA

997. (c) Parathyroid adenoma

The most frequent cause of primary hyperparathyroidism is a solitary parathyroid adenoma, accounting for the majority of cases. Parathyroid hyperplasia can cause primary hyperparathyroidism, but it is less common and often associated with multiple endocrine neoplasia syndromes. Familial forms also exist but are rarer. Parathyroid carcinoma is a very uncommon etiology. Adenomas lead to excessive parathyroid hormone production, raising calcium levels and often prompting symptoms such as nephrolithiasis and bone pain.

998. (c) Factors V and VIII

Factors V and VIII are known as the labile factors that degrade relatively quickly in stored blood. As stored blood gets older, levels of these factors drop significantly, limiting its capacity to correct coagulopathy dependent on them. The more stable clotting factors (such as factor II, IX, and X) remain relatively intact. This is why massive transfusion of older stored blood can be associated with deficiencies in V and VIII if not balanced with fresh frozen plasma.

999. (b) Jejunum

Most dietary iron is absorbed in the duodenum and upper jejunum. Since duodenum is not listed, jejunum is the next most accurate among these options. The stomach primarily helps solubilize iron via acid, but not absorb it. The ileum is more important for vitamin B_{12} absorption, and the colon is not a major site of mineral uptake.

1000. (c) Raised LH, Raised FSH

Classic PCOS typically exhibits an elevated LH:FSH ratio (often >2:1), hyperinsulinism, and hyperandrogenism. FSH is usually normal or even slightly low, while LH is comparatively

CHAPTER 02

GENERAL MEDICINE (INFECTIONS, ACUTE CARE & SPECIALIZED TOPICS

1. Which of the following investigations may be used for the diagnosis of pulmonary tuberculosis ?
1. Nucleic acid amplification
2. Culture in Middlebrook medium
3. Light emitting diode fluorescent microscopy with auramine staining
4. Peripheral blood smear

Select the correct answer using the code given below :
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2024

2. A young male presented with recent onset urethral discharge and dysuria. On examination, the discharge was profuse and purulent. Microscopy of smears from the discharge revealed Gram-negative diplococci. What is the likely diagnosis ?
(a) Genital herpes
(b) Chlamydia
(c) Gonorrhoea
(d) Syphilis

2024

3. A 'slapped cheek' rash is characteristically seen in which of the following infections ?"
(a) Measles
(b) Rubella
(c) Chickenpox
(d) Erythema infectiosum

2024

4. Which of the following pharmacological agents can be used for the treatment of visceral Leishmaniasis ?
1. Pentavalent antimonials
2. Amphotericin B
3. Spiramycin
4. Paromomycin

Select the correct answer using the code given below :"
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2024

5. The Sabin-Feldman dye test is an indirect fluorescent antibody test which is used to detect antibodies against which of the following organisms ?"
(a) Toxoplasma gondii
(b) Leishmania donovani
(c) Coxiella burnetii
(d) Trypanosoma cruzi

2024

6. Cat-scratch disease is caused by infection of which of the following organisms ?"
(a) Chlamydia trachomatis
(b) Coxiella burnetii
(c) Trypanosoma cruzi
(d) Bartonella henselae

2024

7. Which among the following is the first intermediate host for the parasitic fluke Clonorchis sinensis ?"
(a) Dog
(b) Snail
(c) Encysts on vegetation
(d) Sheep

2024

Downloaded from www.pdf.tube

bone resorption and thus increasing osteoporosis risk over time. Danazol, used in endometriosis, also lowers estrogen levels sufficiently to impact bone density adversely. Long-term corticosteroid use is a classic contributor to osteoporosis via effects on bone remodeling and calcium metabolism. Mifepristone (an anti-progesterone with some anti-glucocorticoid effect) is not routinely linked to significant bone density loss in typical clinical use. Hence, among the options, mifepristone is the exception.

1009. (a) Tamoxifen therapy

Hypokalemia can result from excessive aldosterone (as in ACTH-producing tumors), from repeated vomiting (particularly non-bilious gastric fluid loss leading to secondary hyperaldosteronism), and from shifts of potassium out of cells plus total body depletion (as in diabetic ketoacidosis). Tamoxifen is more commonly associated with effects on estrogen pathways and is not generally implicated in causing hypokalemia, making it the correct except.

1010. (a) TSH levels

The most sensitive screening test for primary hypothyroidism is serum TSH measurement. Even small drops in circulating T_4 will trigger a rise in TSH (due to negative feedback at the pituitary). T_3 and T_4 can become abnormal later, making TSH the earliest indicator. TRH levels are not routinely used in clinical testing, and radioactive iodine uptake helps in certain differential diagnoses but is not the most sensitive for hypothyroidism.

1011. (d) Metabolic alkalosis

A right shift in the hemoglobin-oxygen dissociation curve lowers oxygen affinity and is favored by higher temperature, higher pCO_2 (hypercapnia), lower pH, and increased 2,3 DPG. Metabolic alkalosis, conversely, increases the pH, favoring a left shift (increased oxygen affinity). Thus, (d) is the except among the listed factors.

1012. (c) Microcytes

Folic acid deficiency leads to megaloblastic anemia, featuring macrocytic RBCs (larger-than-normal size). Peripheral smears may also show hyper segmented (not hyperpigmented) neutrophils, though the question wording presumably points to that morphological change. Howell-Jolly bodies (nuclear remnants) can appear when RBCs are released prematurely or if the spleen is overwhelmed. Microcytosis, however, is more typical of iron deficiency or thalassemia, making microcytes the incorrect feature for folic deficiency.

NODIA

****

high. Both LH and FSH being raised together is not characteristic of PCOS and is the incorrect (i.e., except) statement. Hyperinsulinism and hyperendemicity remain key features that drive the pathophysiology and clinical manifestations of PCOS.

1001. (b) Sex-linked recessive

Haemophilia A (Factor VIII deficiency) and Haemophilia B (Factor IX deficiency) are classic examples of X-linked recessive disorders. Typically, males are affected, while females are carriers. Females will only manifest disease if they carry mutations on both X chromosomes (which is rare) or have X-inactivation that favors the mutant gene.

1002. (a) Lead poisoning

Basophilic stippling (aggregation of ribosomal RNA) in red blood cells is a hallmark laboratory sign in lead poisoning. Chronic lead exposure interferes with heme synthesis and causes these characteristic dots in RBCs. Arsenic poisoning typically presents with gastrointestinal distress, garlic odor on breath, and peripheral neuropathy, not basophilic stippling. Asbestosis and silicosis are pneumoconioses primarily affecting lungs; they are not associated with basophilic stippling.

1003. (b) IgG and IgM can both cross the placenta

Only IgG crosses the placenta efficiently, conferring passive immunity to the fetus. IgM is larger (pentameric) and does not typically cross the placenta. IgG indeed forms the majority (around 75–85%) of serum antibodies. IgM's half-life is roughly 5–10 days. IgA constitutes around 10–15% of serum immunoglobulins and is crucial in mucosal immunity, being abundant in secretions (e.g., colostrum, saliva). Therefore, the statement about IgG and IgM crossing the placenta is incorrect.

1004. (d) medullary carcinoma of thyroid

Medullary carcinoma of the thyroid (MCT) originates from parafollicular C cells, which produce calcitonin. Elevated serum calcitonin is a hallmark of this malignancy and is used both for diagnosis and monitoring of treatment response or recurrence. Islet cell tumors of the pancreas secrete insulin or glucagon, choriocarcinoma produces human chorionic gonadotropin (hCG), and carcinoid tumors often secrete serotonin or other vasoactive substances. Only MCT is consistently associated with a marked rise in calcitonin levels.

1005. (c) hyperparathyroidism

Osteitis fibrosa cystica (also known as von Recklinghausen's disease of bone) is characterized by excessive osteoclastic activity leading to bone resorption, cystic lesions, and brown tumors. It typically arises from primary hyperparathyroidism, where elevated parathyroid hormone (PTH) results in hypercalcemia and marked bone turnover. Hyperthyroidism, milk-alkali syndrome, and rickets do not produce this particular pattern of cystic bone change and subperiosteal resorption that is pathognomonic of high PTH states.

1006. (c) leukaemia

Priapism is a persistent, often painful erection unrelated to sexual stimulation. In younger males, causes include hematologic disorders such as sickle cell disease and leukemia (particularly chronic or acute leukemias with high white cell counts). The hyperviscosity and infiltration of leukemic blasts can impair penile venous outflow. Other tumors, such as carcinoid or testicular cancers, are not common causes of priapism. Penile cancer typically presents with a lesion on the penis rather than persistent erections.

1007. (d) Iron sucrose

Iron dextran and some older parenteral formulations (e.g. high-molecular-weight iron dextran, iron sorbitol) have been associated with significant risks of anaphylactic reactions. Iron fumarate is typically used in oral preparations rather than standard IV therapy. Iron sucrose, on the other hand, is known to have a much lower risk of anaphylaxis and is commonly used intravenously to treat iron deficiency anemia. Hence, among the listed choices, iron sucrose best fits the criterion of not causing anaphylaxis.

1008. (d) mifepristone

GnRH analogues suppress sex hormone production (especially estrogen), promoting

Click Here to Buy book on Amazon

8. A calabar swelling, which is a short-lived, inflammatory, oedematous swelling close to a limb joint, is characteristically seen in infection caused by which of the following nematodes ?"
(a) Onchocerca volvulus
(b) Mansonella perstans
(c) Loa loa
(d) Brugia malayi

2024

9. An ophthalmologist may observe 'Snowflake' deposits on the edges of the cornea, in a patient infected with which of the following filarial worms ?"
(a) Brugia malayi
(b) Loa loa
(c) Mansonella perstans
(d) Onchocerca volvulus

2024

10. Which among the following are hepatobiliary flukes (trematodes) ?
1. Clonorchis sinensis
2. Mansonella perstans
3. Fasciola hepatica
4. Opisthorchis felineus

Select the correct answer using the code given below :"
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2024

11. Which among the following parasitic helminths is a nematode and has zoonotic transmission ?"
(a) Taenia saginata
(b) Trichinella spiralis
(c) Fasciola hepatica
(d) Fasciolopsis buski

2024

12. Which of the following are correct with regard to BCG vaccination?
1. It is a live-attenuated vaccine.
2. It is administered by intramuscular injection.
3. It is derived from Mycobacterium bovis.
4. It is highly immunogenic.

Select the answer using the code given below :"
(a) 1, 2 and 3
(b) 2, 3 and 4
(c) 1, 3 and 4
(d) 1, 2 and 4

2024

13. Which of the following immunizations are recommended for persons infected with HIV?
1. Hepatitis B vaccine
2. Influenza virus vaccine
3. Pneumococcal vaccine

Select the correct answer using the code given below :"
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2024

14. Consider the following statements with regard to Vitamin D deficiency:
1. Vitamin D deficiency is common in northern latitudes.
2. Vitamin D deficiency is more likely to develop in people with dark skin.
3. Exposure to UV light is advisable in patients with Vitamin D deficiency.

Which of the statements given above are correct?"
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2024

15. Which of the following are correct regarding acetaminophen?
1. It does not interfere with platelet function.
2. It is toxic to the liver in high doses.
3. It is a non-narcotic analgesic.

Select the answer using the code given below:"
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2024

16. Which of the following are causes of acquired systemic amyloidosis?
1. Tuberculosis
2. Multiple myeloma
3. Untreated rheumatoid arthritis
4. Chronic osteomyelitis

Select the correct answer using the code given below:"
(a) 2 and 3 only

NODIA

(b) 1 and 4 only
(c) 2, 3 and 4 only
(d) 1, 2, 3 and 4

2024

17. Consider the following statements regarding Acute Respiratory Distress Syndrome (ARDS):
1. Exudative phase lasts from day 7 to day 21 after exposure to a precipitating risk factor.
2. Proliferative phase is characterised by proliferation of type II pneumocytes.
3. Low tidal volume ventilation (6 mL/kg body weight) has significantly lower mortality in management as compared to high tidal volume ventilation (12 mL/kg body weight).
4. $PaO_2/FiO_2 \leq 100$ mm Hg is classified as severe ARDS.

Which of the statements given above are correct?"
(a) 1, 2 and 3
(b) 2, 3 and 4
(c) 1, 3 and 4
(d) 1, 2 and 4

2024

18. Consider the following statements regarding organophosphate-induced delayed polyneuropathy (OPIDN):
1. It is a rare complication and occurs 2 – 3 weeks after acute exposure.
2. It is a feature of poisoning with certain organophosphorus compounds such as triorthocresyl phosphate.
3. Inhibition of acetylcholinesterase causes motor polyneuropathy with no evidence of sensory loss.
4. There is no specific therapy although regular physiotherapy may limit deformity caused by muscle wasting.

Which of the statements given above are correct?"
(a) 1 and 2 only
(b) 1, 2 and 3
(c) 1, 2 and 4
(d) 2, 3 and 4

2024

19. Consider the following statements regarding paracetamol toxicity:
1. Toxicity is caused by an intermediate reactive metabolite that binds covalently to cellular proteins causing cell death.
2. Antidotes for paracetamol act by replenishing hepatic glutathione and should be administered to all patients with acute poisoning.
3. Intravenous acetyl cysteine is a highly efficacious antidote if administered within 8 hours of the overdose.
4. Methionine may be used as an alternative antidote but it is less effective than acetyl cysteine.

Which of the statements given above are correct?"
(a) 1 and 4 only
(b) 1, 2 and 3
(c) 2, 3 and 4
(d) 1, 2, 3 and 4

2024

20. Whole Bowel Irrigation (WBI) as a method of gastrointestinal decontamination is useful for poisoning with :"
(a) Alcohol
(b) Iron
(c) Kerosene
(d) Organophosphorus

2024

21. Poisoning with which of the following drugs causes hypothermia ?"
(a) Digoxin
(b) Chlorpromazine
(c) Iron
(d) Alcohol

2024

22. Consider the following pairs :
Urine colour → Possible causative agent in a child with suspected poisoning
1. Pink → Cephalosporin
2. Brown → Chloroquine
3. Greenish blue → Phenazopyridine
4. Red-orange → Amitriptyline

How many of the pairs given above are correctly matched ?
(a) Only one pair
(b) Only two pairs
(c) Only three pairs
(d) All four pairs

2024

23. Consider the following agents and the cardiac effects in case of overdose or poisoning :

Downloaded from www.pdf.tube

1. Prolonged PR interval → Lithium
2. Prolonged QTc interval → Amiodarone
3. Wide QRS complex → Kerosene ingestion
4. Tachycardia → Organophosphates

How many of the pairs given above are correctly matched ?"

(a) Only one pair
(b) Only two pairs
(c) Only three pairs
(d) All four pairs

2024

24. Osborn waves in ECG show prolonged repolarization with a distinctive convex elevation of the 'J' point. These waves are associated with

(a) systemic hypothermia
(b) acute pericarditis
(c) acute myocarditis
(d) Brugada syndrome

2023

25. Which of the following are the risk factors for the acquisition of hepatitis C infection?

1. Faeco-oral transmission
2. Intravenous drug abuse
3. Vertical transmission
4. Sharing toothbrush and razors

Select the correct answer using the code given below:

(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2023

26. The serologic marker detectable during 'window' period of hepatitis B infection is

(a) anti-HBsAb
(b) anti-HBc IgG
(c) anti-HBc IgM
(d) HBeAg

2023

27. Which of the following statements are correct for the treatment of chronic hepatitis B with pegylated interferon (PEG-IFN)?

1. PEG-IFN is poorly tolerated drug as compared to nucleoside analogues.
2. Resistance to treatment with PEG-IFN is common than nucleoside analogues.
3. PEG-IFN is not useful in patients of cirrhosis.
4. PEG-IFN is administered every week for 48 weeks.

Select the correct answer using the code given below:

(a) 1, 3 and 4
(b) 1, 2 and 3
(c) 2 and 4
(d) 1 and 3 only

2023

NODIA

28. The Duffy antigen system serves as receptor for which one of the following protozoal parasites?

(a) Giardia lamblia
(b) Plasmodium vivax
(c) Entamoeba histolytica
(d) Balantidium coli

2023

29. Which of the following viruses can be transmitted via transfusion of infected blood?

1. Hepatitis B virus
2. Hepatitis C virus
3. Human immunodeficiency virus
4. Parvovirus B19

Select the correct answer using the code given below.

(a) 1 and 3 only
(b) 2 and 4 only
(c) 1, 2 and 3 only
(d) 1, 2, 3 and 4

2023

30. Primaquine destroys hypnozoites of Plasmodium vivax for radical cure in which one of the following?

(a) Liver
(b) Peripheral blood
(c) Brain
(d) Bone marrow

2023

31. HIV-associated neurocognitive disorder (HAND) includes which of the following?

1. Asymptomatic neurocognitive disorder
2. Minor neurocognitive disorder
3. HIV-associated dementia

Select the correct answer using the code given below.

(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2023

47. Consider the following statements with regard to elapid snakebite:
1. Regardless of the anatomic site of bite, walking of victim should be discouraged.
2. Pressure immobilization should be used, wherever possible.
3. Ptosis can be present after the elapid bite.

Which of the statements given above are correct?"

2023

48. In serological investigation of hepatitis B virus infection, presence of hepatitis B e-antigen (HBeAg) is an indicator of
(a) active replication of virus in the liver
(b) acute liver failure
(c) chronic infection with hepatitis B virus
(d) inactive carrier phase of infection

2023

49. Simultaneous infection with hepatitis B virus (HBV) and hepatitis D virus (HDV) followed by full recovery is associated with the appearance of
(a) low titres of anti-HDV antibody, IgM type
(b) low titres of anti-HDV antibody, IgA type
(c) high titres of anti-HDV antibody, IgM type
(d) high titres of anti-HDV antibody, IgG type

2023

50. Urinary alkalinization as a method for enhancing excretion for poisoning is aimed at achieving
(a) serum pH 7.5–8
(b) urine pH 7.5–8
(c) serum pH 8
(d) urine pH 8

2023

51. Exchange transfusion as a method to enhance excretion of poison is indicated in
(a) methemoglobinemia
(b) carbamazepine poisoning
(c) theophylline poisoning
(d) barbiturate poisoning

2023

52. An 18 year old boy got frost bite of left feet after working in a snowy field for 5-6 hours. He complained of pain, numbness and limited moment of his toes. The skin appeared white and waxy. Which one of the following is contradicted as initial treatment ?
(a) Rewarming by immersion of feet in water bath at 40-44°C
(b) Massage
(c) Cleaning of injured area with soap
(d) Use of analgesia and sterile dressing

2022

53. Composition of oral rehydration solution (WHO) is
(a) Na–90 m mol/L, K–20 m mol/L, Cl–80 m mol/L, Energy–54 kcal/L
(b) Na–80 m mol/L, K–20 m mol/L, Cl–70 m mol/L, Energy–54 kcal/L
(c) Na–90 m mol/L, K–40 m mol/L, Cl–80 m mol/L, Energy–27 kcal/L
(d) Na–80 m mol/L, K–25 m mol/L, Cl–70 m mol/L, Energy–54 kcal/L

2022

54. Which of the following are correct regarding tuberculous meningitis?
1. Acid-Fast Bacilli are infrequently seen on direct smear of CSF
2. CSF culture for MTB is the gold standard for diagnosis
3. Xpert MTB/RIF assay is a preferred initial diagnostic option

Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2022

55. Which one of the following HIV-associated infections is least likely with CD4 count >100 cells/mm^3?
(a) Cerebral toxoplasmosis
(b) Tuberculosis
(c) Herpes zoster
(d) Pneumocystis jirovecii pneumonia

2022

56. A blast victim is brought to the emergency. BP 80/50 mmHg, Pulse 110/min (thready), SpO_2 70%. Rapid shallow breathing, signs of external blood loss, raised JVP, and absent heart sounds. Which one of the following is the next single most immediate step in management, after securing airway, breathing, and circulation?
(a) Chest X-ray PA and lateral view
(b) Urgent needle thoracostomy

Click Here to Buy book on Amazon

4. Shrinking of epiphysis at the lower end of radius

Select the correct answer using the code given below.
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2023

40. Which of the following statements are correct regarding scorpion stings?
1. Scorpion injects venom from a stinger on their tail.
2. Most stings are painful, but relatively harmless.
3. Anticholinergics can be used if antivenom is unavailable.

Select the correct answer using the code given below.
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2023

41. Which of the following statements are correct regarding Kyasanur forest disease?
1. It is commonly seen in North-Eastern States of India.
2. Monkeys act as reservoir of the disease.
3. Transmission happens through tick bite.
4. Inactivated vaccine is available for its prevention.

Select the correct answer using the code given below.
(a) 1 and 4 only
(b) 2 and 3 only
(c) 1, 2 and 4
(d) 2, 3 and 4

2023

42. Which of the following statements are correct regarding brucellosis?
1. Fever may develop into an undulating pattern that persists for weeks.
2. Associated musculoskeletal symptoms are a feature of the disease.
3. Brucellae behave as facultative intracellular parasites.

Select the correct answer using the code given below.
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2023

43. Which one of the following is the drug of choice for the treatment of schistosomiasis?
(a) Doxycycline
(b) Praziquantel
(c) Albendazole
(d) Ivermectin

2023

44. Which of the following opportunistic systemic mycoses is characterized by rapid development of severe tissue necrosis and emerged as specific complication associated with COVID-19 infection in India?
(a) Histoplasmosis
(b) Mucormycosis
(c) Coccidioidomycosis
(d) Sporotrichosis

2023

45. Which of the following fungal infections is caused by dermal inoculation of the fungal agent, usually from a thorn?
(a) Mycetoma
(b) Aspergillosis
(c) Mucormycosis
(d) Sporotrichosis

2023

46. Consider the following statements with regard to coccidioidomycosis:
1. It is a primary systemic mycosis caused by dimorphic fungi Coccidioides immitis and Coccidioides posadasii.
2. Primary pulmonary coccidioidomycosis presents with cough, fever, chest pain and arthritis.
3. Progressive pulmonary coccidioidomycosis presents with constitutional symptoms like fever, weight loss, anorexia and features of lobar pneumonia.
4. Coccidioides meningitis is a mild disease, not warranting any treatment.

Which of the statements given above are correct?"

2023

Downloaded from www.pdf.tube

32. Consider the following statements with regard to cysticercosis :
1. It may present as personality change.
2. Subcutaneous nodule may be excised for histology.
3. Cerebral signs commonly do not occur until the larvae die, 5–20 years later.
4. Praziquantel can be given for 10 days.

Which of the statements given above are correct?
(a) 1 and 4 only
(b) 2 and 3 only
(c) 1, 2 and 3 only
(d) 1, 2, 3 and 4

2023

33. Consider the following statements with regard to strongyloidiasis:
1. It parasitizes the mucosa of upper part of small intestine.
2. Larva currens is fast-moving transient rash seen across abdomen and buttocks.
3. Ivermectin is not an effective treatment.
4. Systemic strongyloidiasis is seen in immune competent state.

Which of the statements given above are correct?
(a) 1 and 2
(b) 2 and 3 only
(c) 2, 3 and 4
(d) 1 and 4

2023

34. Consider the following statements with regard to cutaneous larva migrans :
1. It is one of the commonest linear lesions seen in travellers.
2. It may be associated with a recent visit to a beach.
3. It is non-pruritic.
4. Track moves across the skin at a rate of 2–3 cm/day.

Which of the statements given above are correct?
(a) 1, 2 and 3
(b) 1, 3 and 4
(c) 1, 2 and 4
(d) 2, 3 and 4

2023

35. Consider the following statements with regard to giardiasis :
1. Stools should be examined for cysts at 2–3 days interval for its diagnosis.
2. Colonoscopy aspirate gives the highest diagnostic yield.
3. Infection usually occurs by ingesting contaminated water.
4. Giardia has a flagellate trophozoite form.

Which of the statements given above are correct?
(a) 1 and 3 only
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2 and 4 only

2023

36. Type-2 necrotizing fasciitis is caused by
(a) Group A Streptococcus
(b) Vibrio vulnificus
(c) Clostridium septicum
(d) Staphylococcus aureus

2023

37. Which of the following treatments for a pregnant lady who has been exposed to a patient of chicken pox are correct?
1. Varicella-zoster immune globulin
2. Varicella-zoster vaccine
3. Acyclovir
4. Prednisolone

Select the correct answer using the code given below:
(a) 1, 2 and 4
(b) 2 and 3
(c) 1 and 3 only
(d) 1, 3 and 4

2023

38. Which of the following drugs is/are useful in the treatment of Listeria monocytogenes infection?
1. Ceftriaxone
2. Gentamicin
3. Ampicillin
4. Sulfamethoxazole

Select the correct answer using the code given below.
(a) 1 only
(b) 2, 3 and 4 only
(c) 1 and 2 only
(d) 1, 2, 3 and 4

2023

39. Which of the following abnormalities occur from vitamin D deficiency in children?
1. Craniotabes
2. Bossing of frontal and parietal bones
3. Muscle hypotonia

NODIA

(c) Urgent pericardiocentesis
(d) Blood for cross match followed by blood transfusion

2022

57. A 21 year young female was brought to the Emergency Department with history of unknown substance ingestion. She has vomiting, profuse diarrhoea, bronchorrhoea, and excessive sweating. On examination, miosis and muscular fasciculations were present. What is the most likely diagnosis?
(a) Corrosive substance poisoning
(b) Aluminium phosphide poisoning
(c) Zinc phosphide poisoning
(d) Organophosphorus poisoning

2022

58. A young female of 22 year old presented to the medical emergency with complaints of nausea, vomiting, abdominal pain, diarrhoea, and convulsions along with methaemoglobinemia. What is the likely diagnosis?
(a) Aluminium phosphide poisoning
(b) Zinc phosphide poisoning
(c) Copper sulphate poisoning
(d) Lead poisoning

2022

59. Which of the following are the components of the SOFA (Sequential Organ Failure Assessment) ?
1. Serum bilirubin
2. Platelet count
3. Leucocyte count
4. Serum creatinine

Select the correct answer using the code given below :
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

60. Which of the following statements are correct about treatment with vit D supplement?
1. Serum calcium levels improve earlier than serum PTH levels.
2. Patients should be closely observed with serial vitamin D levels in blood as vitamin D toxicity occurs frequently.
3. Vitamin D supplementation should always be in conjunction with calcium supplementation.
4. Nephrolithiasis is a known complication.

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

61. Consider the following conditions:
1. Kaposi's sarcoma
2. Lymphoma
3. Tuberculosis
4. Persistent generalised lymphadenopathy

Which of the above are causes of lymphadenopathy in a HIV positive patient?
(a) 1 and 3 only
(b) 2 and 3 only
(c) 1, 2 and 4 only
(d) 1, 2, 3 and 4

2022

62. A patient receiving chemotherapy develops neutropenia. He presents with fever, cough, expectoration, chest pain and hemoptysis. His CT scan of chest reveals nodular infiltrates with halo sign and crescent sign. The most useful drug for treating him is
(a) Colistin
(b) Granulocyte Macrophage Colony Stimulating Factor
(c) Voriconazole
(d) Piperacillin-tazobactam

2022

63. A patient undergoes splenectomy after an accident. He will require oral prophylaxis against which of the following organisms?
(a) Staphylococcus aureus
(b) Escherichia coli
(c) Streptococcus pneumoniae
(d) Pneumocystis carinii

2022

64. A 30 year old male recently diagnosed with HIV presented with odynophagia. He was started on a proton-pump inhibitor and an upper GI endoscopy was done. There were serpiginous ulcers in a normal surrounding mucosa in distal esophagus. The most likely diagnosis is

Click Here to Buy book on Amazon

124. A 22-year old male is admitted with fever and altered consciousness for two days. Examination reveals nuchal rigidity and diffuse petechial rash on the trunk and lower extremities. The most likely etiologic agent is:
(a) Escherichia coli
(b) Streptococcus pneumonia
(c) Neisseria meningitides
(d) Hemophilus influenza

2019

125. The drug of choice for the treatment of severe falciparum malaria in a 32-week pregnant woman is:
(a) Artesunate
(b) Quinine
(c) Chloroquine
(d) Quinidine

2019

126. A 28-year old man weighs 80 kg and has a height of 150 cm. Based on his body mass index, he will be categorized as:
(a) Normal
(b) Underweight
(c) Overweight
(d) Obese

2019

127. Angular stomatitis and cheilosis are indicative of deficiencies of which of the following vitamins?
1. Riboflavin
2. Pyridoxine
3. Thiamine
4. Niacin

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 2, 3 and 4
(d) 1, 3 and 4

2019

128. A 16-year old boy presented with fever and a diffuse maculopapular rash. Examination revealed generalised cervical lymphadenopathy and hepatosplenomegaly. After intake of Ampicillin (prescribed by a local practitioner), the rash worsened. The most likely diagnosis is:
(a) Dengue fever
(b) Measles
(c) Drug-rash
(d) Infectious mononucleosis

2019

NODIA

129. A 76-year old male categorized as frail is likely to have overt changes in:
1. Body composition
2. Homeostatic dysregulation
3. Energetic failure
4. Neurodegeneration

Select the correct answer using the code given below:
(a) 1, 2, 3 and 4
(b) 1, 2 and 3 only
(c) 2 and 4 only
(d) 1 and 3 only

2019

130. Following the bite of a snake, a patient develops generalised myalgias, rhabdomyolysis, and progressive flaccid paralysis. The most likely snake implicated is:
(a) Cobra
(b) Krait
(c) Russel viper
(d) Sea snake

2019

131. Which of the following toxidromes is associated with the consumption of pesticides containing organophosphates?
(a) Adrenergic
(b) Serotonergic
(c) Cholinergic
(d) Hypnotic

2019

132. Which of the following is the primary antidote used in children with organophosphate poisoning?
(a) Atropine
(b) Physostigmine
(c) Sodium bicarbonate
(d) Naloxone

2019

133. Which one of the following antiretroviral drugs is a Nucleoside reverse transcriptase inhibitor?
(a) Amprenavir
(b) Indinavir
(c) Abacavir
(d) Nevirapine

2019

134. A 10 year-old boy has received complete pre-exposure vaccination with the rabies vaccine.

STUDYING FROM PDFs?

THINK AGAIN.

If you are studying only from PDFs,
you are wasting valuable time.

Research shows that learning from

PRINTED BOOKS has up to

4× HIGHER RETENTION

than studying from screens.

PRINT BOOK = BETTER MEMORY

PDF = LOWER RETENTION

Those who study from **PRINTED BOOKS**
move **AHEAD.**

Others are left **BEHIND**
in competition.

In competitive exams,
being average is not enough.

STAY ONE STEP AHEAD.

(b) Digoxin
(c) Rifampicin
(d) Beta blockers

2022

73. Urinary alkalinisation is used for enhancing excretion of which of the following poisoning?
(a) Phenobarbitone
(b) Alprazolam
(c) Phenytoin
(d) Lithium

2022

74. Antidote to reverse the muscarinic effects of organophosphate toxicity is
(a) Pralidoxime aldoxime methiodide (PAM)
(b) Atropine
(c) Adrenaline
(d) N-acetylcysteine

2022

75. A victim is found unconscious at the roadside. As a trained rescuer, after checking the victim's response and pulse, you decide on resuscitation. What is the recommended ratio of chest compression to ventilation during CPR ?
(a) 90 : 4
(b) 60 : 2
(c) 30 : 2
(d) 60 : 1

2021

76. Which one of the following is a non-shockable rhythm in respect to use of AED (Automatic External Defibrillator) ?
(a) Monomorphic ventricular tachycardia
(b) Polymorphic ventricular tachycardia
(c) Ventricular fibrillation
(d) Pulseless electrical activity

2021

77. Which one of the following is the serological marker of immunization with Hepatitis B vaccine?
(a) HBsAg
(b) Anti-HBs
(c) HBcAg
(d) Anti-HBc

2021

78. Infection with which of the following organisms can cause a syndrome which is clinically indistinguishable from achalasia of the oesophagus?
(a) Trypanosoma cruzi
(b) Schistosoma haematobium
(c) Mycobacterium leprae
(d) Plasmodium falciparum

2021

79. Pseudomembranous colitis is associated with which one of the following microbes?
(a) Entamoeba histolytica
(b) Salmonella typhi
(c) Escherichia coli
(d) Clostridium difficile

2021

80. The characteristic rash seen on the face in a case of Parvovirus B19 infection is called:
(a) Slapped cheek rash
(b) Butterfly rash
(c) Melasma like rash
(d) Christmas tree rash

2021

81. Bartonella infection is an important cause of blood culture negative endocarditis. Clinical diseases caused by Bartonella species in humans include which of the following?
1. Cat scratch disease
2. Trench fever
3. Carrion's disease
4. Anisakiasis

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2021

82. The causative organism and the vector for scrub typhus are:
(a) Orientia tsutsugamushi and Louse
(b) Rickettsia rickettsii and Trombiculid mite
(c) Orientia tsutsugamushi and Trombiculid mite
(d) Rickettsia prowazekii and Ixodes tick

2021

83. Which of the following are correct regarding tetanus?
1. Risus sardonicus may be seen.
2. Endotoxin produced has affinity for sensory nerve endings.
3. Lockjaw is painless.

Downloaded from www.pdf.tube

146. All of the following are soil transmitted nematodes EXCEPT:
(a) Ancylostoma duodenale
(b) Strongyloides stercoralis
(c) Necator americanus
(d) Ascaris lumbricoides

2018

147. A veterinary doctor is bitten by a stray dog, which is classified as a category 3 bite. He has completed his pre-exposure prophylactic vaccination with human diploid cell Rabies vaccine with three doses administered on day 0, 7, 28 about 1 year back. Appropriate treatment would include which of the following?
1. Wound care
2. Antibiotics
3. Booster dose of Anti Rabies vaccine
4. Rabies immune globulin at wound site

Select the correct answer using the code given below:
(a) 1 only
(b) 1 and 2 only
(c) 1, 2 and 3
(d) 2, 3 and 4

2018

148. Loffler's syndrome is caused due to infection by:
(a) Strongyloidiasis
(b) Filariasis
(c) Cysticercosis
(d) Ascaris

2018

149. Which of the following is/are the common infectious syndrome(s) associated with Klebsiella pneumoniae?
1. Pneumonia
2. Intra-abdominal infections
3. Hepatitis

Select the correct answer using the code given below:
(a) 1 only
(b) 1 and 2 only
(c) 1, 2 and 3
(d) 2 only

2018

150. Differential diagnosis of dysenteric syndrome includes which of the following?
1. Salmonella infection
2. Campylobacter infection
3. Shigella infection
4. Clostridium infection

Select the correct answer using the code given below:
(a) 1, 2 and 4 only
(b) 2, 3 and 4 only
(c) 1 and 3 only
(d) 1, 2, 3 and 4

2018

NODIA

151. Antifungal agent of choice for the treatment of mucormycosis is:
(a) Voriconazole
(b) Itraconazole
(c) Amphotericin-B
(d) Fluconazole

2018

152. Which of the following is NOT a diagnostic criterion of Kwashiorkor?
(a) Serum albumin < 2.8 g/dl
(b) Triceps skinfold thickness < 3 mm
(c) Easy hair pluckability
(d) Edema

2018

153. Which one of the following drugs does NOT have any action against Salmonella typhi?
(a) Erythromycin
(b) Amoxicillin
(c) Co-trimoxazole
(d) Doxycycline

2018

154. All of the following drugs are used for the treatment of influenza EXCEPT:
(a) Zanamivir
(b) Rimantadine
(c) Oseltamivir
(d) Tenofovir

2018

155. Diagnostic accuracy has been enhanced by the ability to detect specific DNA sequences in all of the following infectious micro-organisms EXCEPT:
(a) Cytomegalovirus (CMV)
(b) Human Immunodeficiency virus (HIV)
(c) Mycobacterium tuberculosis
(d) Staphylococcus aureus

2018

156. Gastroenteritis associated with eating raw eggs is usually attributed to:
(a) E.coli

92. Gastric aspiration and lavage is contraindicated in which of the following poisonings?
1. Strong acids
2. Alkalis
3. Petroleum distillates
4. Ethanol

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2021

93. Acetyl cysteine is an antidote for which poisoning?
(a) Salicylates
(b) Paracetamol
(c) Tricyclic antidepressants
(d) Benzodiazepines

2021

94. Kyasanur Forest Disease is endemic to:
(a) West Africa
(b) South America
(c) South-West India
(d) Balkans

2021

95. A 10-year-old girl is diagnosed with dengue fever. She has abdominal pain and persistent vomiting. Examination reveals normal blood pressure but the hematocrit is found to be increased. Which of the following is the most appropriate initial fluid management?
(a) Ringer lactate @ 3 mL/kg/hour
(b) Ringer lactate @ 5 mL/kg/hour
(c) Ringer lactate @ 7 mL/kg/hour
(d) Ringer lactate @ 10 mL/kg/hour

2021

96. The Gene X-pert test used for MTB detection has the additional advantage of detection of which of the following?
(a) INH resistance
(b) Rifampicin resistance
(c) Multi drug resistance
(d) Ethambutol resistance

2020

97. The most common cause of acute hepatitis outbreaks in India is:
(a) Hepatitis E
(b) Hepatitis C
(c) Hepatitis B
(d) Hepatitis A

2020

98. A young medical student while working in HIV ward got pricked accidentally on the finger by a syringe needle which was used to draw blood from a patient. Patient's infection status is not known. Which one of the following therapeutic interventions will be the best interest of this student?
(a) To start Dolutegravir immediately
(b) To wash wound with soap and water and start Emtricitabine
(c) To give Dolutegravir + Tenofovir + Emtricitabine
(d) To give Dolutegravir + Tenofovir + Emtricitabine + HBV Immunoglobulin

2020

99. Cryptococcal infection is acquired through:
(a) Inhalation route
(b) Bite of Culex mosquito
(c) Direct skin contact
(d) Ingestion of spores

2020

100. Which one of the following is NOT appropriate treatment for Echinococcus granulosus and hydatid disease?
(a) Albendazole 400 mg twice in a day for 3 months
(b) Diethylcarbamazine 2 mg/kg thrice in a day for 12 days
(c) PAIR (percutaneous puncture, aspiration, injection of scolicide, reaspiration)
(d) Praziquantel (20 mg/kg twice daily for 14 days)

2020

101. Which one of the following infections is NOT amenable to post-exposure prophylaxis with specific immunoglobulins?
(a) Hepatitis B
(b) HIV
(c) Tetanus
(d) Rabies

2020

102. Echinocandins are a class of:
(a) Antiviral agents
(b) Antiparasitic agents

Click Here to Buy book on Amazon

(c) Antitubercular agents
(d) Antifungal agents

2020

103. Recommended first time drug for initial treatment of tuberculosis include all EXCEPT:
(a) Isoniazid
(b) Rifampin
(c) Ethambutol
(d) Ethionamide

2020

104. The most frequent adverse reaction of significance among people treated for drug-susceptible tuberculosis is:
(a) Colitis
(b) Hepatitis
(c) Cystitis
(d) Enteritis

2020

105. All adult patients in whom anti-tubercular treatment is being started should undergo baseline assessment of:
(a) Complete blood count
(b) Liver function test
(c) Lipid profile
(d) Pulmonary function test

2020

106. A 30 year old male presents with fever, headache, anorexia, nausea, vomiting and diarrhoea. On examination tongue is coated with abdominal tenderness, soft splenomegaly, relative bradycardia and rose spots rash. The most likely diagnosis is:
(a) Malaria fever
(b) Enteric fever
(c) Leptospirosis
(d) Dengue fever

2020

107. The extra pulmonary sites most commonly involved in tuberculosis are all EXCEPT:
(a) Lymph node TB
(b) Genitourinary TB
(c) Skeletal TB
(d) Skull TB

2020

108. Which of the following is NOT a clinical feature of Botulism?
(a) Impaired alertness
(b) Dysphagia
(c) Diplopia
(d) Ptosis

2020

109. Post exposure prophylaxis (PEP) for HIV should contain:
(a) 2 antiretroviral drugs administered for 4 weeks
(b) 2 antiretroviral drugs administered for 6 weeks
(c) 3 antiretroviral drugs administered for 4 weeks
(d) 3 antiretroviral drugs administered for 6 weeks

2020

110. Paralytic rabies is characterized by:
(a) Maculopapular rash
(b) Flaccid muscle weakness
(c) Spastic muscle weakness
(d) Hyperexcitability and facial weakness

2020

111. All of the following are seen in Marasmus EXCEPT:
(a) Reduced triceps skinfold
(b) Reduced mid arm circumference
(c) Protein wasting
(d) Decreased body mass index

2020

112. A 20 year young lady presents with high grade fever for five days and palpable purpura over extremities. She is found to be confused, with presence of neck stiffness. Which of the following is the most likely diagnosis?
(a) Disseminated intravascular coagulation
(b) Acute meningococcaemia
(c) Antiphospholipid antibody syndrome
(d) Thrombotic thrombocytopenic purpura

2020

113. All of the following are clinical features of hypovolaemic shock EXCEPT:
(a) Cold clammy skin
(b) Bradycardia
(c) Hypotension
(d) Oliguria

2020

114. Which one of the following is most appropriate to describe classic heat stroke?

NODIA

(a) Patients core body temperature rises above 44°C with headache, nausea and loss of consciousness
(b) Patients core body temperature rises above 40°C with muscle tremors, confusion, loss of consciousness and loss of sweating
(c) Patients core body temperature rises above 38°C with increased sweating, tachypnoea, tachycardia and loss of consciousness
(d) Patients core body temperature is above 40°C with disorientation, increased sweating, peripheral vasodilation, tachycardia and loss of consciousness

2020

115. Which of the following is NOT a priority in the initial management of shock from venomous snake?
(a) Aggressive volume resuscitation
(b) Vasopressor support
(c) Anti-venom administration
(d) All of these are undertaken simultaneously

2020

116. Which one of the following is NOT an appropriate criterion for diagnosis of Systemic Inflammatory Response Syndrome (SIRS)?
(a) Respiratory rate 20/min
(b) Heart rate 90/min
(c) Total leucocyte count 16×10^9 per Litre
(d) Temperature 38 °C

2020

117. All of the following predispose to Acute Respiratory Distress Syndrome EXCEPT:
(a) Acute Pancreatitis
(b) Toxic gas inhalation
(c) Aspiration of gastric contents
(d) Severe Bronchial asthma

2020

118. Which one of the following drugs is used in cardiopulmonary resuscitation for pulseless ventricular fibrillation?
(a) Atropine
(b) Adenosine
(c) Lidocaine
(d) Amiodarone

2020

119. Which one of the following drugs is the antidote for benzodiazepine poisoning?
(a) Flumazenil
(b) Atropine
(c) Naloxone
(d) Pralidoxime aldoxime methiodide

2020

120. For Acid Fast Bacilli (AFB) to be detected in sputum by the direct microscopy, the bacillary burden in sputum typically is:
(a) 500–1,000 organisms
(b) 5,000–10,000 organisms
(c) 10,000–20,000 organisms
(d) Any number of organisms

2019

121. Consider the following statements regarding Weight Loss:
1. 4.5 kg over 6-12 months
2. 10 kg over 6-12 months
3. More than 5 % over 6-12 months
4. More than 10 % over 6-12 months

Which of the above constitute significant or clinically important weight loss?
(a) 1 and 3
(b) 1 and 4
(c) 2 and 3
(d) 2 and 4

2019

122. Which of the following is NOT a part of Koch's postulates?
(a) The same organism must be present in every case of the disease
(b) The organism must be isolated from the diseased host and grown in culture
(c) The isolate must cause the disease when incubated
(d) The organism may not be reisolated from the incubated diseased host

2019

123. A 32-year old HIV infected male presents with shortness of breath and moderate fever of two-week duration. On examination, cyanosis is present, with respiratory rate of 22/min and some basal crackles in chest. The CT chest shows bilateral ground-glass pattern. The most likely etiologic diagnosis is:
(a) Streptococcus pneumonia
(b) Pneumocystis jirovecii
(c) Mycobacterium tuberculosis
(d) Staphylococcus sp.

2019

NODIA

(a) Herpes simplex esophagitis
(b) Gastro-esophageal reflux disease
(c) Cytomegalovirus esophagitis
(d) Candida esophagitis

2022

65. Which one of the following statements regarding post gonococcal urethritis (PGU) is correct?
(a) Neisseria gonorrhoea is the most frequent cause of PGU in men
(b) PGU refers to non-gonococcal urethritis in men treated earlier with single dose of penicillin
(c) Combination therapy with azithromycin leads to resistance and should be avoided
(d) PGU usually occurs within one week after treatment of non-gonococcal urethritis.

2022

66. Which one of the following treatments is considered as Gold standard for brucellosis in adults?
(a) Streptomycin and Doxycycline
(b) Azithromycin and Rifampin
(c) Trimethoprim and Sulfamethoxazole
(d) Amikacin and Ciprofloxacin

2022

67. Which one of the following has the highest risk of human immuno-deficiency virus (HIV) transmission after single exposure to an HIV-infected source?
(a) Vaginal delivery
(b) Vaginal intercourse
(c) Blood transfusion
(d) Percutaneous needle stick injury

2022

68. Consider the following statements with regard to vitamin C:
1. It is heat stable.
2. Normal platelets are poor in ascorbate.
3. Perifollicular hyperkeratosis is a clinical sign of scurvy.
4. Infants fed exclusively on boiled milk are vitamin C deficient.

Which of the above statements are correct?
(a) 1 and 2
(b) 2 and 3
(c) 1 and 4
(d) 3 and 4

2022

69. Which of the following statements are correct in respect of vitamin D?
1. Skin exposure to sunlight is the main source
2. Deficiency of vitamin D causes distal muscle weakness
3. Vitamin D synthesis decreases in winter, as one moves away from equator
4. Body store accumulated during summer is consumed during winter

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

70. An elderly alcoholic man who mainly eats a diet of maize and maize products presents with complaints of chronic diarrhoea, severe sunburn-like lesions on exposed parts and acute delirium. He is admitted. What is the likely diagnosis and its treatment?
(a) Celiac disease, Gluten free diet
(b) Vitamin B 12 deficiency, Parenteral B12 therapy
(c) Pellagra, Niacin therapy
(d) Whipple's disease, Doxycycline + Trimethoprim

2022

71. According to King's College criteria, which of the following are indicators for referring to liver transplantation following acetaminophen toxicity?
1. Transaminase levels 4000 IU/L
2. Acidemia (Serum pH < 7.3) after adequate fluid resuscitation
3. Coagulopathy (INR 6)
4. Renal dysfunction (creatinine 3–4 mg/dL)

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

72. In a child with high anion gap metabolic acidosis, poisoning with which of the following may be suspected?
(a) Iron

Downloaded from www.pdf.tube

He is bitten on the hand by a stray dog within a year of the last dose. Which of the following will be the recommended treatment option?
(a) Irrigation of the wound with water for ten minutes followed by povidone iodine (local care)
(b) Local wound care and local infiltration with rabies Immunoglobulin (RIG)
(c) Local wound care and 2 doses of rabies vaccine (day 0 and 3)
(d) Local wound care and local infiltration of wound with RIG and 2 dose of rabies vaccine (day 0 and 3)

2019

135. Which of the following combinations of the Human Papilloma Virus (HPV) serotypes are non-oncogenic?
(a) 6 and 11
(b) 6 and 16
(c) 6 and 18
(d) 16 and 18

2019

136. Deficiency of which immune function results in tubercular infections?
(a) Defective phagocytic function
(b) Defect in T cell function
(c) Defect in B cell function
(d) Defect in antibody productivity

2018

137. The most common agent responsible for community acquired pneumonia is:
(a) Streptococcus pneumoniae
(b) Mycoplasma pneumoniae
(c) Staphylococcus aureus
(d) Legionella haemophilia

2018

138. Cutaneous manifestations of tuberculosis includes:
(a) Erythema nodosum and lupus vulgaris
(b) Erythema marginatum and lupus vulgaris
(c) Phlyctenular conjunctivitis and erythema multiforme
(d) Pyoderma gangrenosum and Dactylitis

2018

139. Treatment of scrub typhus is:
(a) Ciprofloxacin
(b) Clindamycin
(c) Penicillin
(d) Azithromycin

2018

140. Which one of the following is NOT correct regarding Clostridium tetani?
(a) Anaerobic
(b) Non motile
(c) Gram positive
(d) Spore bearing

2018

141. All of the following are extrapulmonary manifestations of mycoplasma infection EXCEPT:
(a) Arthritis
(b) Guillain Barre syndrome
(c) Stevens Johnson syndrome
(d) Dementia

2018

142. A 'slapped cheek rash' is characteristic of infection with:
(a) Rubella
(b) Parvovirus B19
(c) Human herpesvirus 6
(d) Measles

2018

143. Which one of the following has the maximum diagnostic sensitivity for Leishmaniasis?
(a) Splenic aspirate
(b) Bone marrow aspirate
(c) Ascitic fluid aspirate
(d) Lymph node aspirate

2018

144. Which one of the following statements regarding cryptosporidiosis is NOT correct?
(a) Infection is acquired by feco-oral route
(b) It is usually a mild self limiting illness in immunocompetent patient
(c) In HIV infected persons it is a serious opportunistic infection
(d) Treatment is with metronidazole

2018

145. All of the following are live attenuated vaccines EXCEPT:
(a) MMR(Measles, Mumps, Rubella) vaccine
(b) Rabies vaccine
(c) Oral polio vaccine
(d) BCG vaccine

2018

NODIA

4. Hysteria can mimic tetanus.

Select the correct answer using the code given below:

(a) 1, 2 and 3 only
(b) 2 and 4 only
(c) 1, 3 and 4 only
(d) 1, 2, 3 and 4

2021

84. A 25-year-old traveller from United Kingdom desires anti-malaria prophylaxis before travelling to India. He has history of seizures and depression. Which of the following drugs can be used?

1. Doxycycline
2. Atovaquone + Proguanil
3. Chloroquine + Proguanil
4. Mefloquine

Select the correct answer using the code given below:

(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1 and 3 only
(d) 3 and 4 only

2021

85. Pulmonary stage is seen in which of the following infections?

1. Ascaris lumbricoides
2. Strongyloides stercoralis
3. Onchocerca volvulus

Select the correct answer using the code given below:

(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2021

86. Consider the following statements with regard to Amphotericin B:

1. It is a narrow spectrum antifungal agent.
2. It can cause nephrotoxicity.
3. It lacks an oral preparation.
4. Its lipid formulations are less toxic.

Select the correct answer using the code given below:

(a) 2 and 3 only
(b) 2, 3 and 4
(c) 1, 3 and 4
(d) 2 and 4 only

2021

87. Which one of the following moulds causes mucormycosis, commonly known as 'black fungus'?

(a) Rhizopus
(b) Aspergillus
(c) Candida
(d) Histoplasma

2021

88. Which of the following infections are caused by mosquito bite?

1. Malaria
2. Typhus
3. Filariasis
4. Dengue fever

Select the correct answer using the code given below:

(a) 1, 2 and 3
(b) 1 and 4 only
(c) 1, 3 and 4
(d) 2, 3 and 4

2021

89. Which one of the following is a hallmark of marasmus?

(a) Normal body mass index
(b) Serum albumin < 2·8 g/dL
(c) Anergy
(d) Triceps skin fold < 3 mm

2021

90. Which one of the following is the primary underlying mechanism of hemolysis in paroxysmal nocturnal hemoglobinuria (PNH)?

(a) ABO incompatibility
(b) Red cell fragmentation
(c) Complement-mediated destruction of CD59(–) red blood cells
(d) Exotoxins produced by Clostridium perfringens

2021

91. Early hypotension in venomous snakebite is due to which of the following?

(a) Pooling of blood in the pulmonary and splanchnic circulation
(b) Systemic bleeding
(c) Hemolysis
(d) Loss of intravascular volume into the soft tissues

2021

Click Here to Buy book on Amazon

(b) Noro virus
(c) Salmonella species
(d) Clostridium botulinum

2018

157. Which one of the following diseases is NOT caused by protozoa?
(a) Trypanosomiasis
(b) Leishmaniasis
(c) Amoebiasis
(d) Schistosomiasis

2018

158. An adult with fever and right sided chest pain is found to have a moderate right sided pleural effusion. Chest X-Ray (PA view) shows a moderate pleural effusion. A diagnostic thoracocentesis reveals straw coloured exudates with 50 mg% of sugar and lymphocytic pleocytosis. ADA levels are borderline. What investigation would be most likely to confirm a diagnosis of tuberculosis?
(a) Needle Biopsy of the Pleura
(b) Pleural Fluid Xpert MTB/RIF assay
(c) Pleural Fluid AFB smear
(d) Pleural Fluid AFB-culture

2018

159. Consider the following statements with regard to acute anterior poliomyelitis:
1. It is caused by a virus belonging to picornavirus family
2. Muscle pain and cramps may be associated with diffuse transient fasciculations at the onset
3. Tonsillectomy reduces the risk of bulbar poliomyelitis
4. Cerebrospinal fluid may show mild pleocytosis with increase polymorphonuclear cells in early course of disease

Which of the above statements are correct?
(a) 1, 2 and 3
(b) 2, 3 and 4
(c) 1, 2 and 4
(d) 1, 3 and 4

2018

160. Which one of the following is NOT seen in case of Marasmus?
(a) Reduced triceps skinfold thickness
(b) Normal serum albumin
(c) Easy hair pluckability
(d) Decreased mid arm circumference

2018

161. All of the following features are present in Organophosphorus poisoning EXCEPT:
(a) Bronchorrhea
(b) Hypertonia
(c) Confusion
(d) Fasciculations

2018

162. Small sized pupils are seen in poisoning with all EXCEPT:
(a) Organophosphorous compounds
(b) Opioids
(c) Clonidine
(d) Cocaine

2018

163. A 24 year old male presents with consumption of an unknown substance. His respiratory rate is 22/min, pulse rate is 110/min, BP is 150/94 mmHg and he has 2 episodes of seizures. There are tremors and hallucinations. The substance ingested most likely is:
(a) Amphetamines
(b) Diazepam
(c) Oxycodone
(d) Ethanol

2018

164. The toxic effects of aluminium phosphide is due to the release of:
(a) Phosgene
(b) Chlorine
(c) Inorganic phosphates
(d) Phosphine

2018

165. An 18 year old boy was brought to the emergency department after being bitten by a saw-scaled viper. The monitoring which is most crucial in this patient is:
(a) Single breath count
(b) Neck flop
(c) Whole blood clotting time
(d) Creatine phosphokinase

2018

166. Bite of cobra is likely to result in:
(a) Flaccid paralysis
(b) Coagulopathy
(c) Myolysis
(d) Cardiotoxicity

NODIA

2018

167. Hematuria is a prominent symptom with infection due to:
(a) Strongyloides stercoralis
(b) Schistosoma hematoma
(c) Toxocara spp.
(d) Gnathostomiasis

2018

168. Bite of the Tsetse Fly transmits:
(a) Leishmaniasis
(b) Chaga's disease
(c) Dengue fever
(d) African Trypanosomiasis

2018

169. A 60 year old man with pneumonia is unconscious and has a PaO_2 of 50 mm Hg. The preferred modality of treatment for him is:
(a) Oxygen through nasal cannula
(b) Non invasive ventilation
(c) Invasive mechanical ventilation
(d) No respiratory support is indicated

2018

170. Oliguria is defined as a reduction in urine output:
(a) Less than 1 ml/kg/hour
(b) Less than 0.5 ml/kg/hour
(c) Less than 200 ml in 24 hours
(d) Any decrease over previous urine output

2018

171. All of the following are signs of Brain death EXCEPT:
(a) Pupils fixed and unresponsive to light
(b) Corneal reflexes absent
(c) Bilateral planter response – Mute or Absent
(d) No gag reflex

2018

172. Corkscrew hairs are seen due to deficiency of:
(a) Vitamin A
(b) Vitamin E
(c) Vitamin K
(d) Vitamin C

2018

173. All of the bacterial diseases are exotoxin-mediated EXCEPT:
(a) Botulism
(b) Diphtheria
(c) Typhoid
(d) Tetanus

2018

174. The following substances can cause dilated pupils EXCEPT:
(a) Tricyclic Antidepressants
(b) Cocaine
(c) Clonidine
(d) Amphetamines

2018

175. Osborn wave in ECG is characteristic of:
(a) Hypothyroidism
(b) Hypovolemia
(c) Hypothermia
(d) Hypocalcemia

2018

176. Which of the following statements regarding HPV (Human Papilloma Virus) vaccine is NOT true?
(a) It can be safely administered in pregnancy
(b) The recommended age for initiation of vaccination is 10–12 years
(c) Catch up vaccination may be permitted up to 26 years of age, provided the woman is not sexually active
(d) The vaccine is administered intramuscularly in deltoid region

2018

177. Which of the following permanent tooth eruption event has close correlation with menarche?
(a) First premolar
(b) First molar
(c) Second premolar
(d) Second molar

2018

178. Which of the following heavy metal poisoning strictly affects motor nerve ?
(a) Cadmium
(b) Mercury
(c) Lead
(d) Thallium

2017

179. A 15 year old boy is brought to emergency with two days history of headache, vomiting and altered sensorium. His BP is 70 mmHg systolic and he has ecchymoses on his skin. Most likely organism causing his condition is:
(a) Hemophilus influenza

Downloaded from www.pdf.tube

(b) Listeria monocytogenes
(c) Neisseria meningitidis
(d) Streptococcus pneumoniae

2017

180. A known case of lepromatous leprosy was initiated on treatment. She developed painful erythematous papules with fever and lymphadenopathy. What is the likely reactional state?
(a) Type 1 lepra reaction
(b) Type 2 lepra reaction
(c) Lucio's phenomenon
(d) Lupus pernio

2017

181. Multidrug resistant tuberculosis is defined as:
(a) At least resistance to three or more antitubercular drugs
(b) At least resistance to Isoniazid, Streptomycin and Ethambutol
(c) At least resistance to Isoniazid and Rifampicin
(d) At least resistance to Streptomycin and Rifampicin

2017

182. The side effects of isoniazid include the following EXCEPT:
(a) Hepatitis
(b) Rash
(c) Peripheral neuropathy
(d) Hyperuricaemia

2017

183. The drug of choice in the treatment of oesophageal candidiasis is:
(a) Fluconazole
(b) Nystatin oral suspension
(c) IV amphotericin
(d) Griseofulvin

2017

184. A 55 year old patient on treatment for pulmonary tuberculosis with Rifampicin, Isoniazid, Pyrazinamide and Ethambutol complain of pain in large and small joints. Which one of the following investigations will you order?
(a) Serum creatinine
(b) Serum amylase
(c) SGOT/SGPT
(d) Serum uric acid

2017

185. Which one of the following is the most appropriate treatment for overdose aspirin ingestion?
(a) Acetazolamide
(b) Sodium bicarbonate
(c) Allopurinol
(d) N-acetyl-cysteine

2017

186. Killer T cells which are responsible for defence against intracellular pathogen are expressed by which of the following CD phenotypes?
(a) CD 2
(b) CD 5
(c) CD 8
(d) CD 10

2017

187. A patient of AIDS developed ophthalmoplegia, ataxia and global confusion. He is likely to have the deficiency of:
(a) Biotin
(b) Niacin
(c) Pyridoxine
(d) Thiamine

2017

188. A 25 year old man presents with nausea, vomiting and diarrhoea with crampy abdominal pain. He gives history of consumption of rice preparation in his last meal. What is the likely organism causing the above complaints?
(a) Clostridium perfringens
(b) Bacillus cereus
(c) Staphylococcus aureus
(d) Campylobacter jejuni

2017

189. A five year old girl is brought to you with history of fever for seven days associated with rash, anorexia, myalgia and petechial haemorrhages. Which of the following investigations will be most appropriate for making a diagnosis of dengue fever?
(a) Detection of NS1 antigen
(b) Platelet count
(c) IgG capture ELISA
(d) Detection of IgM antibodies for dengue

2017

190. An eight year old boy was diagnosed to have P.vivax malaria and was treated with appropriate dosages of chloroquine. The fever subsided but

NODIA

to normal. The complication that carries high mortality and morbidity is:
(a) Cerebral oedema
(b) Lacunar infarct
(c) Post ictal state
(d) Cerebral haemorrhage

2015

212. Which of the following is least suggestive of poliovirus infection?
(a) Low grade fever and malaise with complete resolution in 2 to 3 days
(b) Biphasic illness with several days of fever, then meningeal symptoms and asymmetric flaccid paralysis 5 to 10 days later
(c) Descending motor paralysis with preservation of tendon reflexes and absent sensation
(d) Failure to isolate a virus from the CSF in the presence of marked meningismus

2015

213. Which of the following are characteristics features of tuberculoid leprosy?
1. Type 2 lepra reaction
2. A few lesions with well demarcated edges
3. Early and marked nerve damage
4. Tendency to heal spontaneously

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 2, 3 and 4
(c) 1 and 4
(d) 2 and 3 only

2015

214. Regarding erythema nodosum leprosum, which one of the following is not correct?
(a) It is usually during initiation of treatment
(b) Tender subcutaneous nodules observed
(c) Lymphadenopathy is common
(d) Ophthalmic involvement can occur

2015

215. The most common microorganism known to cause tropical pyomyositis is:
(a) Streptococcus viridans
(b) Staphylococcus albus
(c) Klebsiella pneumonia
(d) Staphylococcus aureus

2015

216. A farmer presents with history of fever and chills, severe bodyache, headache, conjuctival suffusion and jaundice. He has severe muscle tenderness, leukocytosis and mild uraemia. The most likely diagnosis would be:
(a) Leptospirosis
(b) Typhoid fever
(c) Typhus
(d) Viral hepatitis

2015

217. Consider the following statements regarding falciparum malaria:
1. The mortality rises steeply when the proportion of infected erythrocytes increases above 3 percent.
2. The patient may develop hypoglycemia even when not treated with quinine.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

2015

218. 'Loeffler's syndrome' is characterized by:
(a) Transient, migratory pulmonary infiltrations
(b) Fibrosis in the pulmonary apices
(c) Fibrosis in the base of one or both lungs
(d) Miliary mottling

2015

219. A 28 year old woman presented with high grade fever, cough, diarrhea and mental confusion for 4 days. X-ray chest revealed bilateral pneumonitis. Search for etiology will most likely reveal
(a) Streptococcus pneumoniae
(b) Staphylococcus aureus
(c) Legionella pneumophila
(d) Pseudomonas aeruginosa

2015

220. Which one of the following tests has the highest chance of detecting HIV infection in a blood donor during the window period?
(a) Demonstration of antibody to HIV by ELISA
(b) CD4 count
(c) p24 antigen detection
(d) Western blot test

2015

Click Here to Buy book on Amazon

2. Ampicillin covers Listeria monocytogenes.

Which of the statements given above is/are correct?

(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

2016

201. In a patient with lacerated injury foot who is not actively immunised against tetanus, which one of the following is indicated for tetanus prophylaxis?

(a) Penicillin
(b) Tetanus toxoid
(c) Tetanus immunoglobulin
(d) Triple vaccine

2016

202. The Swan-Ganz catheter is used to measure:

(a) Peripheral arterial blood pressure
(b) Portal venous pressure
(c) Pulmonary wedge pressure
(d) Intracranial pressure monitoring

2016

203. Delirium is usually seen in

(a) Acetaminophen toxicity
(b) Atropine toxicity
(c) Kerosene poisoning
(d) Digitalis toxicity

2016

204. Diagnosis and grading of multi-organ failure is based on all the following criteria except:

(a) Serum bilirubin
(b) Serum albumin
(c) Serum creatinine
(d) PaO_2/FiO_2 ratio

2016

205. Consider the following statements:

Life-threatening pneumococcal infection is a complication seen in

1. Idiopathic thrombocytopaenic purpura
2. Sickle cell disease
3. Thalassemia minor
4. Nephrotic syndrome

Which of the statements given above is/are correct?

(a) 1 only
(b) 1 and 3
(c) 2 and 4 only
(d) 2, 3 and 4

2016

206. Pseudomembranous colitis is caused by which of the following organisms?

(a) Shigella
(b) Clostridium difficile
(c) E. coli
(d) Clostridium perfringens

2016

207. Klebsiella pneumonia has the following characteristics except:

(a) Upper lobes are frequently involved
(b) Pneumatocele may occur commonly
(c) Empyema is much more common
(d) Lung abscess formation is very uncommon

2015

208. A 35 year old 40 kg male patient was diagnosed to be a case of pulmonary tuberculosis. The appropriate conventional regimen of antitubercular drugs would be:

(a) Rifampicin 450 mg + Isoniazid 300 mg + Pyrazinamide 1500 mg
(b) Rifampicin 600 mg + Isoniazid 300 mg + Pyrazinamide 1000 mg
(c) Rifampicin 450 mg + Isoniazid 200 mg + Pyrazinamide 1000 mg
(d) Rifampicin 450 mg + Isoniazid 200 mg + Pyrazinamide 1500 mg

2015

209. Which one of the following is not recommended in immediate treatment of acute severe asthma?

(a) Oxygen supplementation
(b) High doses of inhaled B_2–adrenoreceptor agonists
(c) Systemic corticosteroids
(d) Intravenous aminophylline

2015

210. Which of the following viral markers signifies the ongoing viral replication in the case of Hepatitis-B infection?

(a) Anti-HBs
(b) Anti-HBc
(c) HBe Ag
(d) HBs Ag

2015

211. A patient of hypoglycemia fails to regain consciousness after blood glucose is restored

Downloaded from www.pdf.tube

3. Elevated circulating level of tumour necrosis factor (TNF) is detected in patients with ENL
4. Lucio phenomenon occurs in untreated patients with tuberculoid leprosy

Which of the statements given above are correct ?

(a) 1, 2 and 3
(b) 2, 3 and 4
(c) 1, 2 and 4
(d) 1, 3 and 4

2013

252. Consider the following statements regarding organo-phosphorus poisoning :

1. There is inhibition of cholinesterase function
2. In chronic exposure, there may be peripheral neuropathy
3. In acute poisoning, there may be muscular weakness
4. In intermediate syndrome, sensory functions may be affected

Which of the statements given above are correct ?

(a) 1, 2 and 3
(b) 2, 3 and 4
(c) 1, 2 and 4
(d) 1, 3 and 4

2013

253. Which one of the following is a specific antidote for opiate overdose ?

(a) Fomepizole
(b) Flumazenil
(c) Naloxone
(d) Physostigmine

2013

254. Which one of the following statements concerning catheter associated urinary tract infection is correct ?

(a) Most catheter associated infections are symptomatic
(b) Routine antimicrobial prophylaxis is indicated
(c) Microscopic bacteria correlates with significant colony count (10^5/ml) in symptomatic cases
(d) Skin organisms such as staphylococcus and streptococcus are the most common aeteological organisms

2013

255. Pin point pupil may be found in all of the following except

(a) Organophosphorus poisoning
(b) Morphine poisoning
(c) Pontine haemorrhage
(d) Paracetamol poisoning

2013

256. Consider susceptibility to the following pulmonary pathogens:

1. M. tuberculosis
2. P. aeruginosa
3. S. aureus
4. Nocardia sp.

Which of the above is/are associated with long-term glucocorticoid therapy?

(a) 3 only
(b) 1 and 4
(c) 2 and 3
(d) 2, 3 and 4

2013

257. Rasmussen's aneurysm is a

(a) dilated vessel in a tubercular lung cavity
(b) dilation of the root of aorta in valvular stenosis
(c) dilated aorta in syphilitic affection
(d) dilated renal vessel in hypertensive renal disease

2013

NODIA

258. The following are important diagnostic skin manifestations of acute rheumatic fever :

1. Erythema marginatum
2. Subcutaneous nodules
3. Oster's nodes
4. Butterfly rash

Select the correct answer using the code given below :

(a) 1, 2 and 4
(b) 1 and 2 only
(c) 2, 3 and 4
(d) 1 and 3

2013

259. Match List I with List II and select the correct answer using the code given below the Lists:

	List I		List II
A	Dermatomyositis	1	Heliotrope rash
B	Epidemic dropsy	2	Hypernatraemia

221. The following are exotoxin-mediated infections except:
(a) Cholera
(b) Typhoid
(c) Botulism
(d) Tetanus

2015

222. Match List I with List II and select the correct answer using the Code given below the lists:

	List I		List II
A	Calcium sodium edetate	1	Cyanide
B	Sodium nitrite	2	Nitrobenzene
C	Methylene blue	3	Lead
D	Atropine	4	Organophosphate

(a) A-4, B-1, C-2, D-3
(b) A-1, B-4, C-2, D-3
(c) A-3, B-4, C-2, D-1
(d) A-3, B-1, C-2, D-4

2015

223. Which one of the following viruses was exploited to create genetically engineered virus 'onyx-15', an oncolytic virus to target and eliminate cancer cells?
(a) Parvovirus
(b) Adenovirus
(c) Pox virus
(d) Herpes simplex virus

2015

224. Salicylate intoxication in adults usually causes:
1. Severe respiratory alkalosis.
2. Mixed metabolic acidosis respiratory alkalosis.
3. Hyperchloremic metabolic acidosis.

Select the correct answer using the code given below
(a) 1 and 2 only
(b) 3 only
(c) 2 and 3 only
(d) 1, 2 and 3

2014

225. Which one of the following pairs is not correctly matched?
(a) Uraemic acidosis – Haemodialysis
(b) Methanol intoxication – Ethanol
(c) Hyperosmolar coma – Intravenous fluids
(d) Starvation ketosis – Glucagon

2014

226. Biphasic defibrillation in case of ventricular fibrillation is first done with:
(a) 200 Joules
(b) 250 Joules
(c) 300 Joules
(d) 360 Joules

2014

227. Acute rheumatic fever is caused by:
(a) Coagulase negative staphylococcus
(b) Streptococcus pneumonia
(c) Group A streptococcus
(d) Group D streptococcus

2014

228. Match List I with List II and select the correct answer using the code given below the lists:

	List I		List II
A	Rocky mountain spotted fever	1	Tick bite
B	Q fever	2	Mite bite
C	Rickettsial pox	3	Infected louse passes feces into broken skin.
D	Epidemic typhus	4	Inhalation of dried infected material

(a) A- 1 B-4 C-2 D-3
(b) A-2 B-3 C-4 D-1
(c) A-4 B-1 C-2 D-3
(d) A-1 B-1 C-2 D-4

2014

229. Among the following, which one is not a good dietary source of iron?
(a) Liver
(b) Jaggery
(c) Fish
(d) Milk

2014

230. Match List I with List II and select the correct answer using the code given below:

	List I		List II
A	Benzodiazepine	1	D-penicillamine
B	Copper sulphate	2	Flumazenil
C	Opiates	3	N–acetyl cysteine
D	Paracetamol	4	Naloxone

Click Here to Buy book on Amazon

recurred after 3 weeks. Peripheral smear was again positive for P.vivax. This child should now be treated as a case with
(a) Relapse
(b) Recrudescence
(c) Either relapse/recrudescence
(d) Fresh infection

2017

191. A child after snake bite develops petechiae and ecchymosis on the skin. In addition, child develops bleeding from venipuncture site and oliguria. The most likely snake species is:
(a) Pit viper
(b) Cobra
(c) Mamba
(d) Python

2017

192. Which one of the following infections is related to subacute sclerosing panencephalitis (SSPE)?
(a) HIV
(b) Measles virus
(c) Japanese B encephalitis virus
(d) JC virus

2016

193. Consider the following statements:
1. Boils/suppurative lesions around the nose must be promptly treated with antibiotics.
2. Suppurative lesions around the nose lead to cavernous sinus thrombosis.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

2016

194. Which one of the following tests has the highest chance of detecting HIV infection in a blood donor during the window period?
(a) Demonstration of antibody to HIV by ELISA
(b) CD4 count
(c) p24 antigen detection
(d) Western blot test

2016

195. Which of the following features are characteristic of tuberculoid leprosy?
1. Type 2 lepra reaction
2. A few lesions with well demarcated edges
3. Early and marked nerve damage
4. Tendency to heal spontaneously

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 2, 3 and 4
(c) 1 and 4
(d) 2 and 3 only

2016

196. Consider the following statements about leptospirosis:
1. It is a ubiquitous enzootic disease.
2. Its incubation period ranges from 2 to 20 days.
3. The intensity of jaundice is directly related to prognosis.
4. Urine may show microscopic haematuria.

Which of the statements given above are correct?
(a) 1, 2 and 4
(b) 1, 2 and 3
(c) 1, 3 and 4
(d) 2, 3 and 4

2016

197. Systemic inflammatory response syndrome (SIRS) can have the following features except:
(a) Hypothermia
(b) Bradycardia
(c) Tachypnea
(d) Leucopenia (WBC < 4000)

2016

198. Which of the following is not a complication of malaria?
(a) ARDS
(b) Acidosis
(c) Hyperglycaemia
(d) Coma

2016

199. Botulism can have the following clinical features except:
(a) Hyperpyrexia
(b) Sudden onset quadriplegia
(c) Cranial nerve deficits
(d) Respiratory failure

2016

200. Consider the following statements:
1. Gentamicin should be added to empirical regime for acute meningitis for patients aged more than 55 years.

NODIA

(a) Hepatitis A virus
(b) Hepatitis B virus
(c) Hepatitis C virus
(d) Hepatitis E virus

2013

244. Drug of choice for the treatment of Taenia solium and Taenia saginata infestation is
(a) Metronidazole
(b) Albendazole
(c) Niclosamide
(d) Diloxanide furoate

2013

245. Sub-acute combined degeneration of spinal cord results from the deficiency of which of the following vitamins?
(a) B_6
(b) B_{12}
(c) B_1
(d) B_3

2013

246. Match List I with List II and select the correct answer using the code given below the Lists:

	List I		**List II**
A	Epidemic typhus	1	Coxiella burnetii
B	Murine typhus	2	R. rickettsii
C	Q fever	3	R. typhi
D	Rocky mountain spotted fever	4	R. prowazekii

Code :
(a) A-1 B-4 C-2 D-3
(b) A-2 B-3 C-4 D-1
(c) A-4 B-3 C-1 D-2
(d) A-3 B-1 C-2 D-4

2013

247. Which one of the following statements is not correct regarding the characteristics of HACEK organisms?
(a) Fastidious, fast-growing, gram-positive bacteria whose growth requires an atmosphere of L-cysteine
(b) Known to cause severe systemic infections – most often bacterial endocarditis, which can develop on either native or prosthetic valves
(c) Normally reside in the oral cavity and has been associated with local infections in the mouth
(d) The cure rates for HACEK prosthetic-valve endocarditis appears to be high

2013

248. Splenectomised patients have an increased susceptibility to which one of the following infections?
(a) Entamoeba histolytica
(b) Giardia lamblia
(c) Streptococcus pneumoniae
(d) Aspergillus niger

2013

249. Match List I with List II and select the correct answer using the code given below the Lists:

	List I		**List II**
A	Nucleoside analogue Reverse Transcriptase Inhibitor	1	Stavudin
B	Nucleotide analogue Reverse Transcriptase Inhibitor	2	Nevirapine
C	Non-Nucleoside Reverse Transcriptase Inhibitor	3	Lopinavir
D	Protease Inhibitor	4	Tenofovir

Code :
(a) A-1 B-3C-2 D-4
(b) A-1 B-4 C-2 D-3
(c) A-4 B-3 C-1 D-2
(d) A-3 B-1 C-2 D-4

2013

250. A 8-year old child presents with itching on the scalp with loss of hair. A characteristic black dot" appearance is seen. Which of the following is the most likely cause?
(a) Alopecia areata
(b) Pediculosis capitis
(c) Tinea capitis
(d) Traumatic alopecia

2013

251. Consider the following statements regarding leprosy :
1. Lepra reactions are not a feature of tuberculoid leprosy
2. Erythema nodosum leprosum often occurs following institution of chemotherapy

Downloaded from www.pdf.tube

(a) A-2 B-4 C-1 D-3
(b) A-2 B-1 C-4 D-3
(c) A-3 B-1 C-4 D-2
(d) A-3 B-4 C-1 D-2

2014

231. What is the most common lobe involved in Herpes Simplex virus encephalitis?
(a) Frontal lobe
(b) Temporal lobe
(c) Occipital lobe
(d) Parietal lobe

2014

232. What is the commonest organism for prosthetic valve endocarditis?
(a) Staphylococcus epidermidis
(b) Streptococcus viridans
(c) HAECK organism
(d) Staphylococcus aureus

2014

233. Tuberculoid leprosy is likely to have:
(a) Leonine facies
(b) Negative lepromin test
(c) Thickened peripheral nerve
(d) Abundant lepra bacilli in the skin lesion

2014

234. Regarding vitamin 'K', which one of the following statements is correct?
(a) It is a water soluble vitamin
(b) Its body stores can last more than 8 years
(c) Its routine prophylaxis in newborn children is recommended to prevent early hemorrhagic disease
(d) It is the treatment of choice in patients with acute severe hemoptysis

2014

235. Which hepatitis marker can be used to diagnose Acute Hepatitis B?
(a) HBc Ag
(b) Anti HBc
(c) HBs Ag
(d) HBe Ag

2014

236. Which one of the following is not a vector-borne disease?
(a) Japanese encephalitis
(b) Dengue fever
(c) Kala-azar
(d) Meningococcal meningitis

2014

237. Vitamin B12 deficiency can cause the following except:
(a) Myopathy
(b) Myelopathy
(c) Optic atrophy
(d) Peripheral neuropathy

2014

NODIA

238. Which one of the following pairs is not correctly matched?
(a) Vitamin B6 — Beriberi
(b) Vitamin B3 — Pellagra
(c) Vitamin B12 — Subacute combined degeneration of cord
(d) Vitamin B5 — Burning feet syndrome

2014

239. A child with poliomyelitis in acute phase can have all the following except:
(a) Painful affected extremity
(b) Sensory loss
(c) Hypotonia
(d) Depressed deep tendon reflexes

2014

240. Endemic cardiomyopathy in children is linked to the deficiency of
(a) zinc
(b) cobalt
(c) selenium
(d) chromium

2013

241. Multi-drug resistance tuberculosis implies resistance to at least
(a) any two antitubercular drugs
(b) Isoniazid and Ethambutol
(c) Rifampicin and Ethambutol
(d) Isoniazid and Rifampicin

2013

242. A patient of pulmonary tuberculosis is on antitubercular therapy. He develops drug-induced hepatitis. Which of the following drugs is not responsible?
(a) Rifampicin
(b) Ethambutol
(c) Pyrazinamide
(d) Isoniazid

2013

243. Which of the following is a DNA virus?

C	Arsenic poisoning	3	Hyperpigmentation
D	Diabetes insipidus	4	Dihydrosanguirine

Code :
(a) A-1 B-4 C-3 D-2
(b) A-1 B-3 C-4 D-2
(c) A-2 B-4 C-3 D-1
(d) A-2 B-3 C-4 D-1

2013

260. Each of the following antibiotics can be given orally except
(a) Azithromycin
(b) Amikacin
(c) Cefdinir
(d) Linezolid

2013

261. Which one of the following ECG findings is most likely to be seen at the time of cardiac arrest?
(a) Ventricular fibrillation
(b) Ventricular tachycardia
(c) Atrial fibrillation
(d) Paroxysmal atrial tachycardia

2013

262. The most reliable indicator of recent Hepatitis-B infection in a convalescing patient is
(a) IgM Anti HBc
(b) IgM Anti HBe
(c) HBs Ag
(d) IgG Anti HBs

2013

263. Subacute sclerosing panencephalitis is associated with which of the following viral infections?
(a) Mumps
(b) Measles
(c) Rubella
(d) Poliomyelitis

2013

264. Match List I with List II and select the correct answer using the code given below the Lists:

	List I		**List II**
A	Acute pyogenic meningitis	1	Normal CSF
B	Tubercular meningitis	2	Elevated proteins with no cells
C	Guillain-Barre syndrome	3	Elevated protein and cells (mainly polymorphs)
D	Neurocysticer-cosis	4	Elevated proteins and cells (mainly lymphocytes)

Code :
(a) A-1 B-3C-2 D-4
(b) A-1 B-4 C-2 D-3
(c) A-4 B-1 C-2 D-3
(d) A-3 B-4 C-2 D-1

2013

265. The triad of diarrhoea, dementia and dermatitis" is characteristically seen in the deficiency of vitamin
(a) Riboflavin
(b) Niacin
(c) Thiamine
(d) Pyridoxine

2013

266. What is the naturally occurring form of vitamin D in the human skin ?
(a) Calciferol
(b) 7 hydrocholesterol
(c) 25 hydroxy cholecalciferol
(d) 1, 25 dihydroxy cholecalciferol

2013

267. Warthin-Finkeldey giant cells in lymphoid tissue are characteristic of which of the following infections ?
(a) Mumps
(b) Measles
(c) Congenital cytomegalovirus infection
(d) HIV infection

2013

268. Some antibiotics act as ionophores, which means that they
(a) interfere directly with bacterial cell wall synthesis
(b) increase cell membrane permeability to specific ions
(c) inhibit both transcription and translation
(d) inhibit electrophoretic separation of ions

2013

269. Polymerase Chain Reaction technique is used for
(a) DNA amplification

Click Here to Buy book on Amazon

289. Regarding syphilis, the following statements are correct except
(a) The disease is caused by Treponema pallidum, a spirochete
(b) Cardiovascular syphilis often leads to dissecting aneurysm of the aorta
(c) Regional lymphadenopathy accompanies the primary lesion appearing within one week of the onset
(d) Fluorescent treponemal antibody-absorption test is a highly specific test for the diagnosis of disease

2012

290. The following features are hallmarks of post-primary pulmonary tuberculosis except
(a) It results from endogenous reactivation of latent infection
(b) The disease is usually localized to the anterior segment of the upper lobe
(c) If cavity formation occurs, satellite lesions result from the discharge of liquefied contents into the airways
(d) Up to one-third of untreated patients die due to severe pulmonary TB within a few weeks or months after onset

2012

291. Subacute sclerosing panencephalitis is associated with
(a) Mumps
(b) Measles
(c) Exanthema subitum
(d) Erythema infectiosum

2012

292. The following are live attenuated vaccines except
(a) Polio Sabin vaccine
(b) Schwarz measles vaccine
(c) BCG vaccine
(d) Pertussis vaccine

2012

293. Which of the following is not a characteristic feature of Kala-azar?
(a) Splenomegaly
(b) Leukocytosis
(c) Anaemia
(d) Hypoalbuminaemia

2012

294. It is known that the yellow pigment curcumin in turmeric powder helps the body cells to resist infections. Recently, its exact action has been discovered. In this context which of the following statements is/are correct?
1. Curcumin stimulates the rapid multiplication of WBC that destroy the infectious microorganisms.
2. Curcumin molecules insert themselves into cell membranes and make the membranes resistant to invading microorganisms.
3. Curcumin stimulates the rapid synthesis of antibodies against the invading microorganisms.

Select the correct answer using the code given below:
(a) 1 only
(b) 1 and 3 only
(c) 2 only
(d) 1, 2 and 3

2012

295. With reference to the popular medicinal plant 'guggal' (Commiphora wightii), which of the following statements is/are correct?
1. It grows in the wild in the tropical rain forests of north-east India only.
2. The gum extract of the plant has the medicinal properties.
3. It helps in lowering the low-density lipoprotein cholesterol.

Select the correct answer using the code given below:
(a) 1 only
(b) 2 and 3 only
(c) 3 only
(d) 1, 2 and 3

2012

296. Biological fixation of nitrogen most commonly occurs in which of the following crops?
(a) Pulses
(b) Cereals
(c) All tuber crops
(d) Sugarcane and beetroot

2012

297. A genetically modified rice called 'golden rice' helps in combating the deficiency of
(a) Vitamin A
(b) Vitamin C
(c) Calcium

NODIA

(d) Hepatitis C is a more frequent cause for fulminant hepatitis than Hepatitis B infection

2012

279. A 14-year-old girl is brought with the alleged consumption of a liquid poison. Her clinical examination reveals the pulse rate to be 52/min, BP 100/70 mmHg, and respiratory rate 8/min. She has shallow breathing. Her skin is cold and clammy. She has excessive salivation. On auscultation of the lungs, she has crepitations. The CNS examination reveals all 4 limbs to be flaccid, and she has fasciculations. What is the most probable poison ?
(a) Barbiturates
(b) Copper sulphate
(c) Opioids
(d) Organophosphorus compound

2012

280. A 24-year-old HIV positive male presents with fever, cough and breathlessness for the last one week. On clinical examination, he is emaciated, tachypnoeic and has scattered crepitations over both the lung fields. The chest X-ray shows bilateral interstitial infiltrates. The initial antibiotic of choice would be
(a) Penicillin
(b) Cotrimoxazole
(c) Amphotericin B
(d) Acyclovir

2012

281. The typhus group of fevers are transmitted by the following :
1. Mites
2. Human body louse
3. Sand fly
4. Fleas

Select the correct answer using the code given below :
(a) 1, 2 and 3
(b) 1, 3 and 4
(c) 1, 2 and 4
(d) 2, 3 and 4

2012

282. Secondary syphilis is characterized by all of the following except
(a) Generalised mucocutaneous lesions
(b) Generalised tender lymphadenopathy
(c) Constitutional symptoms like fever, and weight loss
(d) Painless silver-grey mucosal erosions

2012

283. The gravest complication of Falciparum malaria is
(a) Cerebral malaria
(b) Acute pulmonary oedema
(c) Algid malaria
(d) Metabolic acidosis

2012

284. Each of the following antitubercular drugs is potentially hepatotoxic except
(a) Ethambutol
(b) Isoniazid
(c) Rifampicin
(d) Pyrazinamide

2012

285. Which of the following is a first-generation cephalosporin ?
(a) Cefaclor
(b) Cefazolin
(c) Cefoxitin
(d) Cefepime

2012

286. Which of the following drugs is useful in the treatment of 'Febrile neutropenia'?
(a) Fluconazole
(b) Itraconazole
(c) Voriconazole
(d) Flucytosine

2012

NODIA

287. Cellular immunity is affected by
(a) Cytokines
(b) Immunoglobulins
(c) Gamma globulins
(d) Prostaglandins

2012

288. Quinine is prescribed for the treatment of chloroquine resistant falciparum malaria. The oral dose of quinine is about
(a) 10 mg/kg per day
(b) 20 mg/kg per day
(c) 30 mg/kg per day
(d) 50 mg/kg per day

2012

(b) DNA sequencing
(c) screening gene libraries
(d) synthesis of polymerases

2013

270. As regards Kala-azar, the following statements are correct except
(a) It is caused by Leishmania donovani
(b) It is transmitted by the bite of male sand flies
(c) It is the promastigote form of parasite, which is transmitted to the human host at the time the sand fly bites the host
(d) A patient may develop post Kala-azar dermal leishmaniasis during the course of therapy or a few months later

2012

271. A young man is prescribed parenteral antibiotics for respiratory tract infection. He collapses immediately after receiving the first dose, with tachycardia, wheezing and a drop in blood pressure. The most appropriate immediate intervention in this situation would be to administer
(a) Intravenous saline
(b) Intravenous hydrocortisone
(c) Subcutaneous epinephrine
(d) Nebulized salbutamol

2012

272. To complete the transfusion of a unit of packed Red Blood Cells in a patient with anaemia, how much time should be taken optimally ?
(a) 1-3 hours
(b) 4-5 hours
(c) 6-7 hours
(d) 8-9 hours

2012

273. The term Vincent's angina is used for
(a) Ischaemic chest pain, characterised by ST segment depression on E.C.G.
(b) Post myocardial infarction angina
(c) Painful, deep, sloughing infection of the gums from commensal organisms of the mouth
(d) Chest pain in a case of achalasia cardia

2012

274. Match List I with List II and select the correct answer using the code given below the Lists :

	List I		**List II**
A	Opium	1	Flumazenil
B	Cyanide	2	Naloxone
C	Mercury	3	Dimercapto-1-propane sulphate
D	Diazepam	4	Sodium thiosulphate

Code :
(a) A-1 B-3 C-2 D-4
(b) A-2 B-4 C-3 D-1
(c) A-4 B-1 C-2 D-3
(d) A-3 B-1 C-2 D-4

2012

275. A patient is admitted with fever and chills for the last seven days and drowsiness for the last two days. He is febrile, icteric and semiconscious with a pulse of 110/min and BP 100/70 mmHg. The peripheral smear shows the ring form of Plasmodium falciparum – 100 infected RBCs per 1000. The patient should be started on
(a) Intravenous quinine
(b) Quinine through Ryle's tube
(c) Intravenous chloroquine
(d) Oral primaquine

2012

276. Epidemic dropsy results from
(a) Dhatura poisoning
(b) Argemone poisoning
(c) Aluminium phosphide poisoning
(d) Organophosphorus poisoning

2012

277. The drug of choice for cryptococcal meningitis is
(a) Fluconazole
(b) Ketoconazole
(c) Amphotericin B
(d) Pentamidine

2012

278. Regarding hepatobiliary disease, which of the following statements is true ?
(a) Hepatitis B is the most common viral cause of cirrhosis worldwide
(b) Fewer than 5% of patients with chronic hepatitis C will develop cirrhosis
(c) In India, Hepatitis B is transmitted primarily by the faeco-oral route

Downloaded from www.pdf.tube

(d) Zinc

2012

298. Haemodialysis is useful in the management of overdose/poisoning of the following drugs except :
(a) Lithium
(b) Theophylline
(c) Chloramphenicol
(d) Salicylates

2011

299. For the prevention of Yellow fever a single vaccination with 17 D non-pathogenic strain of virus gives full protection to the individual for at least
(a) 10 years
(b) 12 years
(c) 15 years
(d) 18 years

2011

300. Besides Zidovudine and Lamivudine, which of the following drugs is a reverse transcriptase inhibitor used in the treatment of HIV infection ?
(a) Saquinavir
(b) Indinavir
(c) Abacavir
(d) Ritonavir

2011

301. Which of the following statements is not true in the cases of infective endocarditis caused by HACEK organisms ?
(a) The clinical course of HACEK endocarditis tends to be acute and fulminant.
(b) Cultures of blood from patients with suspect HACEK endocarditis may require up to 30 days to be positive.
(c) Embolisation is common and occurs in around 50% cases of HACEK endocarditis.
(d) Valvular vegetations are seen in up to 85% of patients.

2011

302. In leptospirosis, the following clinical features are seen except :
(a) Jaundice which may be intense
(b) Haemorrhage
(c) Hepatomegaly
(d) Massive splenomegaly

2011

303. The following pathological features are associated with Plasmodium falciparum except :
(a) Cytoadherence
(b) Sequestration
(c) Rosetting
(d) Tissue phase

2011

304. Which of the human intestinal parasitic nematodes does not infest the small bowel ?
(a) Ascaris lumbricoides
(b) Necator americanus
(c) Strongyloides stercoralis
(d) Trichuris trichiura

2011

NODIA

305. Lymphatic filariasis is not caused by
(a) Brugia malayi
(b) Brugia timori
(c) Loa loa
(d) Wuchereria bancrofti

2011

306. Giardiasis may result in the following except :
(a) Ill health
(b) Diarrhoea
(c) Steatorrhoea
(d) Gastrointestinal bleeding

2011

307. Which of the following statements about cysticercosis is true?
(a) The causative agent is Echinococcus granulosus.
(b) The definitive host is man.
(c) Human cysticercosis is transmitted by the ingestion of ova.
(d) Levamisole is the treatment of choice.

2011

308. Consider the following :
1. Goodpasture's syndrome
2. Myasthenia gravis
3. Guillain-Barré syndrome

In which of the above conditions may plasmapheresis be useful?
(a) 1 only
(b) 1 and 2 only
(c) 2 and 3 only
(d) 1, 2 and 3

2011

309. With which of the following group of anti-retroviral drugs are dyslipidemia, insulin

2009

354. Sulphasalazine is not used for the treatment of
(a) Crohn's disease
(b) Rheumatoid arthritis
(c) Sarcoidosis
(d) Ulcerative colitis

2009

355. Imipenem is co-administered with cilastin because
(a) Cilastin aids the gastrointestinal absorption of the active moiety, imipenem
(b) Cilastin inhibits β-lactamase that destroys imipenem
(c) Cilastin inhibits an enzyme in the kidney that destroys imipenem
(d) Cilastin prevents the hypoprothrombotic effect of imipenem

2009

356. What is the drug of choice for CMV (Cytomegalovirus) Retinitis in patients with AIDS ?
(a) Acyclovir
(b) Gancyclovir
(c) Pentamidine
(d) Co-trimoxazole

2009

357. A patient with HIV disease presents with fever, malaise and headache of acute onset. CSF examination reveals 20 cells with 80% lymphocytes, protein 100 mg/dl, sugar 35 mg/dl, and a positive India ink preparation. CT head is normal. What is the most appropriate therapy in this patient ?
(a) Amphotericin-B
(b) Amoxycillin
(c) Acyclovir
(d) Anti-tubercular drugs

2009

358. In an immuno-compromised patient with local gamma(-gumma)-like tumors and granulomatous lesions of lungs, bones, brain and meninges, the most likely diagnosis is
(a) Tuberculosis
(b) Leprosy
(c) Sarcoidosis
(d) Cryptococcosis

2009

359. Which one of the following is not a fungal infection ?
(a) Chromomycosis
(b) Pheohyphomycosis
(c) Actinomycosis
(d) Blastomycosis

2009

360. Pyridoxine hypervitaminosis causes
(a) Polyneuropathy
(b) Hypercalcemia
(c) Liver damage
(d) Renal failure

2009

361. Which one of the following is most characteristic of Elapidae snake envenomation ?
(a) Bleeding manifestation
(b) Neuro-paralytic symptoms
(c) Rhabdomyolysis
(d) Cardiotoxicity

2009

362. A 28-year-old male patient is brought to casualty in comatose state, with pin-point pupils, reduced respiratory rate and bradycardia. What is the most likely diagnosis ?
(a) Tricyclic antidepressant poisoning
(b) Opioid poisoning
(c) Benzodiazepine poisoning
(d) Organophosphorus poisoning

2009

363. Which one of the following is a nucleotide reverse transcriptase inhibitor ?
(a) Ritonavir
(b) Indinavir
(c) Tenofovir
(d) Nelfinavir

2009

364. The following are characteristic of tumourlysis syndrome except :
(a) Hyperkalemia
(b) Hypercalcemia
(c) Hyperuricemia
(d) Hyperphosphatemia

2009

365. Consider the following statements with regard to sexual transmission of HIV :
1. Male-to-female transmission is many times more efficient than female-to-male transmission.

Click Here to Buy book on Amazon

(a) Borrelia
(b) Legionella
(c) Leptospira
(d) Treponema

2010

320. Neurocysticercosis is caused by
(a) Adult form of Taenia solium
(b) Larval form of Taenia solium
(c) Adult form of Taenia saginata
(d) Larval form of Taenia saginata

2010

321. The following are the WHO criteria for diagnosis of severe malaria except
(a) Temperature 39° C
(b) Severe normocytic anaemia (Hb < 5 g/dl)
(c) Hypoglycemia
(d) Metabolic acidosis

2010

322. Which of the following has the best sensitivity and specificity for diagnosis of visceral leishmaniasis ?
(a) Direct agglutination test
(b) Latex agglutination test
(c) Strip test for recombinant K_{39} antigen
(d) Fluorescent dye tagged antibodies

2010

323. Which of the following is the drug of choice for the treatment of all forms of Schistosomiasis ?
(a) Niclosamide
(b) Ivermectin
(c) Albendazole
(d) Praziquantel

2010

324. Which of the following organisms causes lymphatic filariasis ?
(a) Brugia timori
(b) Loa loa
(c) Mansonella perstans
(d) Onchocerca volvulus

2010

325. Which one of the following drugs is not recommended for treatment of invasive candidiasis in neutropenic patients ?
(a) Amphotericin-B
(b) Caspofungin
(c) Nystatin
(d) Voriconazole

2010

326. What is the earliest manifestation of hypovolaemia ?
(a) Loss of skin turgor
(b) Sunken eye balls
(c) Orthostatic hypotension
(d) Decreased urine output

2010

NODIA

327. Which of the following statements is not correct about monobactam aztreonam ?
(a) It has excellent anti-gram-negative antibiotic activity.
(b) It is not useful against gram-positive organisms or anaerobes.
(c) It is available as oral preparation.
(d) It is administered 12 hourly.

2010

328. In which stage of syphilis are the lesions of condyloma lata present ?
(a) Primary
(b) Secondary
(c) Tertiary
(d) Congenital

2010

329. With reference to Vitamin B_6, consider the following statements :
1. It is a cofactor for metabolism of many amino acids.
2. Its active form in humans is pyridoxal 5-phosphate.

Which of the statements given above is/are correct ?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

2010

330. The earliest sensation to be lost in leprosy is
(a) Thermal
(b) Tactile
(c) Pain
(d) Vibration

2010

331. What is the causative virus for common wart ?
(a) Human papilloma virus
(b) Cytomegalovirus
(c) Human immunodeficiency virus
(d) Herpes virus

2010

332. A patient with HIV-AIDS on treatment for tubercular lymphadenitis develops a gross increase in the size of lymph nodes after receiving antiretroviral therapy for four weeks. Laboratory tests show a doubling of his CD4 count. What is the most likely reason for this ?
(a) Multi-drug persistent TB
(b) Drug defaulter for anti TB drugs
(c) Immune reconstitution inflammatory syndrome
(d) Poor compliance for antiretroviral therapy
2010

333. Which one of the following is the most appropriate treatment of overdose of aspirin ingestion ?
(a) Acetazolamide
(b) Sodium bi-carbonate
(c) Allopurinol
(d) N-acetyl cysteine
2010

334. The tumour suppressor gene that is inactivated in over 50% of human tumours including breast and colon carcinomas and childhood leukaemias is
(a) p Rb
(b) STK 11
(c) p 53
(d) VHL
2010

335. Which one of the following is not an example of point mutation ?
(a) Haemochromatosis
(b) Hereditary motor and sensory neuropathy type 1
(c) Achondroplasia
(d) α-1 antitrypsin deficiency
2010

336. The pupils of a patient would be pinpoint in poisoning with the following agents except
(a) Carbamates
(b) Phenothiazines
(c) Barbiturates
(d) Opioids
2010

337. The intermediate syndrome in organophosphate poisoning refers to the occurrence of which of the following ?
(a) Cholinergic syndrome with hyper-secretion
(b) Organophosphate induced polyneuropathy
(c) Organophosphate induced delayed neuropathy
(d) Cranial nerve and brain stem lesions
2010

338. As regards the treatment of poisoning, activated charcoal is useful in the following except
(a) Carbamazepine
(b) Dapsone
(c) Quinine
(d) Lithium
2010

339. Which of the following CD phenotypes is expressed by the killer T cells which are responsible for defence against intracellular pathogens ?
(a) CD2
(b) CD5
(c) CD8
(d) CD10
2010

340. What is the risk of reactivating latent tuberculosis infection in a patient having HIV infection ?
(a) 2 - 5%
(b) 7 - 10%
(c) 12 - 15%
(d) < 1%
2010

341. Binding to which of the following complements links the innate and adaptive immune systems for activation of the classic complement pathway ?
(a) C1q
(b) C3b
(c) C3
(d) C5a
2010

342. C-reactive protein is increased in the following except
(a) Crohn's disease
(b) Systemic vasculitis
(c) Multiple myeloma
(d) Giant cell arteritis
2010

343. Rifampicin can be used in the prophylaxis of which of the following diseases ?
(a) Pulmonary tuberculosis
(b) Lepromatous leprosy

Downloaded from www.pdf.tube

(c) Pneumococcal pneumonia
(d) Meningococcal meningitis

2010

344. Consider the following statements: Antidotes now considered obsolete include the following:
1. Universal antidote for ingested poisons
2. Flumazenil for benzodiazepines
3. Acetylcysteine for paracetamol
4. Pyridoxine for isoniazid

Which of the statements given above is/are correct?
(a) 1 only
(b) 1 and 2 only
(c) 3 and 4 only
(d) 1, 2, 3 and 4

2010

345. Phlyctenular conjunctivitis is associated with
(a) Tuberculosis
(b) Syphilis
(c) Stevens Johnson syndrome
(d) Leprosy

2010

346. With reference to recent research in stem cells, consider the following statements :
1. The umbilical cord tissue is rich in mesenchymal stem cells.
2. Mesenchymal stem cells are found in bone marrow also.

Which of the statements given above is/are correct ?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

2010

347. With reference to the Pill Camera which is a step further in endoscopy, consider the following statements :
1. Pill camera can be steered by doctors from outside the body through patient's skin via a magnetic device.
2. Pill Camera can take 12 images per second.

Which of the statements given above is/are correct ?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

2010

348. The distinct golden colour in transgenic golden rice is due to the presence of
(a) Riboflavin
(b) β-carotene
(c) Vitamin B12
(d) Xanthophyll

2009

349. Recently, the scientists of which one of the following countries created the first engineered living human nervous tissue construct, a mini-nervous system in culture, which can be transplanted en masse ?
(a) Germany
(b) Japan
(c) UK
(d) USA

2009

350. Regarding measles, which one of the following statements is not correct ?
(a) It is caused by paramyxo virus infection
(b) Rash is usually vesicular
(c) Infection spreads by droplets
(d) Incubation period is 14 days

2009

351. Secondary syphilis is characterized by the following except :
(a) Occurs 6–8 weeks after development of chancre
(b) Painful and itchy maculo-papular lesions
(c) Constitutional features are present
(d) Meningitis, hepatitis, glomerulonephritis and uveitis may occur

2009

352. Which maturation stage of RBCs is infected by Plasmodium falciparum ?
(a) Reticulocyte stage only
(b) Normoblast stage
(c) Old RBC
(d) RBC of all ages

2009

353. Giardiasis is characterized by the following except
(a) Abdominal discomfort and bloating
(b) Acute or chronic diarrhea
(c) Duodenum and jejunum are the prime sites of involvement
(d) Giardia cysts are resistant to heat and desiccation

NODIA

resistance, diabetes mellitus with abdominal obesity and skeletal wasting linked ?
(a) Reverse transcriptase inhibitors
(b) Integrase inhibitors
(c) Protease inhibitors
(d) Entry inhibitors

2011

310. Patients receiving INH therapy require supplementation with which of the following vitamins ?
(a) Thiamine
(b) Pyridoxine
(c) Niacin
(d) Folic acid

2011

311. Tomatoes are rich in which one of the following antioxidants ?
(a) Allicin
(b) Curcumin
(c) Lignans
(d) Lycopene

2011

312. While managing a mass disaster, the term triage" applies to
(a) It is the principle of first come, first treated.
(b) It is the classification of the injured on the basis of severity of injuries with the concept of treating the most seriously injured first.
(c) It is the classification of the injured on the basis of severity of injuries with the concept of treating the children and adolescents first.
(d) It is the classification of the injured on the basis of severity of injuries with the concept of treating those first who are likely to survive with medical intervention.

2011

313. The internationally accepted four-colour code system has been adopted by many countries to carry out triage in the situation of mass emergencies. Match the colour with its significance and pick the correct answer using the code given below :

	List I		**List II**
A	Red	1	Moribund patients
B	Yellow	2	Medium priority treatment
C	Green	3	High priority treatment
D	Black	4	Ambulatory patients

Code :
(a) A-1 B-3 C-2 D-4
(b) A-1 B-4 C-2 D-3
(c) A-4 B-1 C-2 D-3
(d) A-3 B-2 C-4 D-1

2011

314. Which one of the following bacteria almost never cause cavities in the lungs ?
(a) Staphylococcus aureus
(b) Pseudomonas aeruginosa
(c) Actinomyces
(d) Haemophilus influenzae

2010

315. Consuming which of the following food products is most associated with Escherichia coli type 0157 infection ?
(a) Eggs
(b) Poultry
(c) Beef
(d) Soft cheese

2010

316. Which one of the following organisms is not included in HACEK group ?
(a) Actinobacillus actinomycetemcomitans
(b) Corynebacterium jeikeium
(c) Haemophilus sp.
(d) Kingella kingae

2010

317. Which of the following diseases is not caused by Spirochetes ?
(a) Human leptospirosis
(b) Pinta
(c) Relapsing fever
(d) Undulant fever

2010

318. A young male develops febrile illness with severe muscle pains one week after prolonged swimming in fresh water. It is associated with deep jaundice, haemorrhages and renal failure. What is the most likely diagnosis ?
(a) Dengue fever
(b) Falciparum malaria
(c) Acute Hepatitis E infection
(d) Leptospirosis

2010

319. Which of the following is not a Spirochete ?

Click Here to Buy book on Amazon

2. Non-ulcerative inflammatory STDs such as those caused by Chlamydia trachomatis and Trichomonas vaginalis do not increase the risk of transmission of HIV infection.
3. Infections with Treponema pallidum, Haemophilus ducreyi and HSV increase the risk of transmission of HIV infection.
4. Oral sex is a much less efficient mode of transmission of HIV than is receptive anal intercourse.

Which of the statements given above are correct ?
(a) 1 and 3 only
(b) 1, 3 and 4 only
(c) 2 and 4 only
(d) 1, 2, 3 and 4

2009

366. Consider the following statements :
1. Thalidomide is the drug of choice for Erythema Nodosum Leprosum.
2. It is an immuno-modulatory and anti-inflammatory drug.

Which of the statements given above is/are correct ?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

2009

367. A 23-year-old individual who believes in megavitamins therapy develops severe headache. Fundoscopy reveals papilloedema. The likely cause for this problem is
(a) Vitamin B_{12} intoxication
(b) Vitamin A intoxication
(c) Vitamin E intoxication
(d) Vitamin K intoxication

2009

368. Which of the following is the most common clinical manifestation of Human Parvovirus B 19 (HPV-B 19) infection ?
(a) Aplastic crisis in hemolytic anemia patients
(b) Anemia in neonatal period
(c) Erythema infectiosum
(d) Hydrops fetalis

2009

369. Consider the following :
1. Kerosene poisoning
2. Organophosphoruss poisoning
3. Corrosive poisoning
4. Iron poisoning

In which of the above is gastric lavage contraindicated ?
(a) 1 only
(b) 1 and 3 only
(c) 2 and 4 only
(d) 1, 2, 3 and 4

2009

370. Of the following amino acids, which is categorized as a nonessential amino acid?
(a) Leucine
(b) Threonine
(c) Tryptophan
(d) Proline

2024

371. Consider the following milks :
1. Buffalo milk
2. Cow milk
3. Goat milk
4. Human milk

What is the correct order (from highest to lowest) with regard to fat content per 100 g in the milk?
(a) $1 \rightarrow 3 \rightarrow 4 \rightarrow 2$
(b) $4 \rightarrow 2 \rightarrow 3 \rightarrow 1$
(c) $2 \rightarrow 1 \rightarrow 4 \rightarrow 3$
(d) $1 \rightarrow 3 \rightarrow 2 \rightarrow 4$

2024

372. Which of the following are unsaturated fatty acids?
1. Lauric acid
2. Linoleic acid
3. Oleic acid
4. Palmitic acid

Select the correct answer using the code given below.
(a) 1 and 2
(b) 1 and 4
(c) 2 and 3
(d) 3 and 4

2024

373. In India, the most widely prevalent stage of iron deficiency is
(a) decreased iron stores without any other detectable abnormalities
(b) fall in percentage saturation of transferrin
(c) overt iron deficiency with impaired haemoglobin synthesis

Downloaded from www.pdf.tube

	List-I		List-II
A	Cisplatinum	1	Hemorrhagic cystitis
B	Adriamycin	2	Pulmonary fibrosis
C	Bleomycin	3	Cardiomyopathy
D	Cyclophosphamide	4	Tubular necrosis

Code:
(a) A-1 B-3 C-2 D-4
(b) A-1 B-4 C-2 D-3
(c) A-4 B-3 C-2 D-1
(d) A-3 B-1 C-2 D-4

2016

398. The immunoglobulins that can be transported across the placenta include:
(a) IgG only
(b) IgA only
(c) Both IgG and IgA
(d) Neither IgG nor IgA

2016

399. Consider the following statements:
1. The duration of immunity is longer when live vaccine is administered as compared to the administration of killed vaccine.
2. In the case of killed vaccine, single dose is sufficient whereas multiple doses are always required in the case of live vaccines.

Which of these statements is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

2016

400. Influenza vaccine is recommended for:
1. Elderly
2. Persons with underlying chronic diseases
3. HIV infected
4. General population

Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 4
(c) 2 and 3 only
(d) 1, 2 and 3

2016

401. Which of the following statements is true about hydatid disease?
(a) It is a zoonosis
(b) It is rare in sheep rearing countries
(c) It is a protozoal disease
(d) Man is the definitive host

2016

402. Umbilical cord blood stem cells are used to treat all the following diseases except :
(a) Parkinsonism
(b) Leukemia
(c) Diabetes
(d) Osteoporosis

2016

403. A surgeon told the patient's attendant that his patient has 'flesh eating bug' which is the cause of such severe infection in his dirty wound on his lower limb. Which organism was the surgeon referring to?
(a) Staphylococcus aureus
(b) Pseudomonas aeruginosa
(c) Clostridium difficile
(d) Steptococcus pyogenes

2015

404. A 75 year old diabetic man had surgery for perforated colonic diverticulitis. In his post operative period he complained of severe wound pain and had signs of spreading inflammation with crepitus with subdermal spread of gangrene. He is likely to be suffering from
(a) Clostridial infection
(b) Meleney synergistic gangrene
(c) Abdominal wall cellulitis
(d) Intra-peritoneal collection

2015

405. Which of the following is an example of 'live attenuated vaccine'?
(a) D.P.T.
(b) B.C.G.
(c) Hepatitis 'B'
(d) Typhoid (TAB)

2014

406. Which of the following are the features of Rubella?
1. Rashes appear within 24 hours of onset of symptoms
2. Incubation period is 2 – 3 weeks
3. False membrane is formed in throat
4. Post auricular lymph nodes enlarge

NODIA

2019

386. Which one of the following statements regarding Magnesium is NOT true?
(a) It is constituent of bones
(b) It is essential for normal metabolism of calcium and potassium
(c) Human adult body contains about 50 g of Magnesium
(d) Daily requirement of magnesium is estimated to be about 340 mg/day for adults

2019

387. Which one of the following oil/fat contains high mono-unsaturated fatty acid and moderate linoleic acid?
(a) Groundnut oil
(b) Palm kernel oil
(c) Safflower oil
(d) Flax seed oil

2019

388. Which one of the following trace elements if deficient in the diet can lead to low birth weight, preterm delivery, spontaneous abortion or even congenital malformation like anencephaly?
(a) Copper
(b) Cobalt
(c) Selenium
(d) Zinc

2019

389. All of the following drugs are effective for treatment of human reservoir for hookworm infection in single dose EXCEPT:
(a) Piperazine
(b) Albendazole
(c) Levamisole
(d) Pyrantel

2019

390. Varicella-Zoster Immunoglobulin (VZIG) is NOT recommended for which of the exposed susceptible individuals?
(a) Newborn
(b) HIV/AIDS positive
(c) Healthy sibling
(d) Pregnant women

2018

391. A pregnant woman in 2nd trimester of pregnancy from North Eastern State has been diagnosed with uncomplicated P. falciparum. She should be treated with:
(a) Artemether and Lumefantrine
(b) Artesunate and Sulphadoxine
(c) Artesunate, Sulphadoxine and Pyrimethamine
(d) Chlorine and Primaquine

2018

392. Intramuscular injection of iron dextran is given by 'Z' technique to:
(a) Alleviate the pain
(b) Decrease the incidence of infection
(c) Reduce the staining
(d) Increase the iron absorption

2017

393. Consider the following statements regarding folic acid:
1. It is needed for normal development of blood cells in the marrow
2. It has a role in synthesis of nucleic acids
3. It is resistant to boiling
Which of the above statements is/are correct?
(a) 1 only
(b) 1 and 2
(c) 1 and 3
(d) 2 and 3

2017

394. Which one of the following bacteria is classified as facultative anaerobe?
(a) Pseudomonas
(b) Bacteroides
(c) Escherichia
(d) Clostridium

2016

395. In India, the commonest cause of unilateral lymphoedema of lower limb is:
(a) Lymphoedema tarda
(b) Carcinoma of penis
(c) Filariasis
(d) Tubercular lymphadenopathy

2016

396. Which of the following is not a clinical feature of tetanus?
(a) Risus sardonicus
(b) Opisthotonus
(c) Loss of consciousness
(d) Respiratory failure

2016

397. Match List-I with List-II and select the correct answer using the code given below the lists:

Click Here to Buy book on Amazon

(c) A-4 B-1 C-2 D-3
(d) A-3 B-2 C-1 D-4

436. Clinical signs and symptoms in tetanus are a result of
(a) Endotoxins
(b) Exotoxins fixed to motor nerve endplates
(c) Circulating exotoxins
(d) Both endotoxins and exotoxins

2009

437. With reference to lepromin test, which one of the following statements is correct?
(a) Lepromin test is strongly positive in tuberculoid leprosy
(b) It is not affected by BCG vaccine
(c) It can be used as a diagnostic test
(d) Its interpretation is done within 24 hours

2009

438. Consider the following statements:
1. The deficiency of thiamine leads to the accumulation of pyruvic and lactic acids in the body.
2. Riboflavin deficiency impairs the optimal utilization of pyridoxine.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

2009

****

NODIA

Select the correct answer using the code given below:
(a) 1, 2 and 4
(b) 2 and 3 only
(c) 1, 2 and 3
(d) 2 and 4 only

2014

407. Which of the following statements is not true regarding HIV infection?
(a) HIV does not transmit through fomites.
(b) Every HIV infected person would require antiretroviral treatment during lifetime.
(c) All HIV positive mothers transmit infection to their newborn children.
(d) Infected blood transfusion leads to 100% transmission among recipients.

2014

408. A 25-years old patient has 5 × 5 cm amoebic abscess in right lobe of liver. He is febrile and has pain right hypochondrium. His primary management would include :
(a) Laparotomy and drainage
(b) Ultra-sound guided aspiration
(c) Ultra-sound guided placement of pigtail catheter
(d) Administration of antibiotic and observation

2013

409. The surgical complications of typhoid fever include all of the following except :
(a) Perforation peritonitis
(b) Acute cholecystitis
(c) Splenic abscess
(d) Acute pancreatitis

2013

410. The complications of ascaris lumbricoides infestation include all of the following except :
(a) acute intestinal obstruction
(b) lower gastro intestinal bleed
(c) cholangitis and obstructive jaundice
(d) pancreatitis

2013

411. Dehydration is not a feature of one of the following diseases :
(a) Cerebral malaria
(b) Pertussis
(c) Cholera
(d) MDR-TB

2013

412. The scolicidal agents used in the surgery of a hydatid cyst include all of the following except
(a) 0·5% silver nitrate
(b) 20% (hypertonic) saline
(c) 15% gluteraldehyde
(d) Absolute alcohol

2012

413. Which of the following statements is true about antibiotic therapy ?
(a) It has its greatest effect on multiplying organisms
(b) It enhances the uptake of organisms by phagocytes
(c) It enhances the intracellular killing of organisms by phagocytes
(d) It facilitates killing of organisms by activation of complements

2012

414. The most common opportunistic infection observed in patients with AIDS is
(a) Atypical mycobacteria
(b) Haemophilus influenzae
(c) Pseudomonas aeruginosa
(d) Pneumocystis carinii

2012

415. Which of the following conditions may produce wrist drop"?
(a) Lead poisoning
(b) Diabetes mellitus
(c) Alcoholics
(d) Beriberi

2012

416. The pathogenic organism responsible for the causation of Donovaniasis is
(a) Chlamydia trachomatis
(b) Calymmatobacterium granulomatis
(c) Haemophilus ducreyi
(d) Herpes simplex virus

2012

417. The incubation period of mumps is
(a) 1-2 weeks
(b) 2-3 weeks
(c) 3-4 weeks
(d) 4-5 weeks

2012

418. In infants and toddlers, craniotabes is a sign related to the deficiency of
(a) Vitamin A

Downloaded from www.pdf.tube

CHAPTER 02

GENERAL MEDICINE (INFECTIONS, ACUTE CARE & SPECIALIZED TOPICS

NODIA

1. (a) 1, 2 and 3
Diagnosing pulmonary tuberculosis relies on direct and indirect methods of detecting Mycobacterium tuberculosis. Nucleic acid amplification tests (like GeneXpert) rapidly identify mycobacterial DNA. Culture in specialized media (e.g., Middlebrook or Lowenstein-Jensen) provides definitive evidence but is time-consuming. Light-emitting diode (LED) fluorescence microscopy with auramine staining is more sensitive than conventional staining. Peripheral blood smear is not a standard diagnostic tool for pulmonary TB. Combining rapid molecular tests, culture, and fluorescent microscopy improves diagnostic accuracy.

2. (c) Gonorrhoea
A profuse, purulent urethral discharge with Gram-negative intracellular diplococci on microscopy is strongly indicative of Neisseria gonorrhoeae infection. Typical features include dysuria, copious purulent discharge, and the characteristic bacteriologic finding of Gram-negative diplococci often within polymorphonuclear leukocytes. Chlamydial infections usually present with a more mucoid discharge, genital herpes is caused by HSV and presents differently, and syphilis is classically diagnosed via serology or dark-field microscopy of ulcer exudate rather than urethral discharge.

3. (d) Erythema infectiosum
Erythema infectiosum (fifth disease) is caused by Parvovirus B19. The infection typically presents with mild, nonspecific symptoms, followed by bright red slapped cheek" facial rash in children. In adults, it can manifest with arthralgias or aplastic crises in certain hematologic conditions. Measles (rubeola), rubella (German measles), and chickenpox (varicella) have distinct rash patterns but lack the classic slapped-cheek appearance.

4. (b) 1, 2 and 4
Visceral leishmaniasis (kala-azar) is treated by:
1. Pentavalent antimonials (e.g., sodium stibogluconate),
2. Amphotericin B (especially liposomal forms),
3. Paromomycin, and
4. Miltefosine (oral).

Spiramycin is used primarily for toxoplasmosis and is not a standard agent for leishmaniasis. Combining or rotating therapies helps overcome resistance and improves outcomes in endemic areas.

5. (a) Toxoplasma gondii
The Sabin-Feldman dye test is a classic serological assay for Toxoplasma gondii. Patient serum is incubated with live Toxoplasma organisms plus complement. If the patient has anti-Toxoplasma antibodies, the parasites become permeable to the dye, leading to characteristic staining. Leishmania donovani, Coxiella burnetii (Q fever), and Trypanosoma cruzi (Chagas disease) require different diagnostic tests.

6. (d) Bartonella henselae
Cat-scratch disease occurs when a cat infected with Bartonella henselae transmits the bacterium via scratch or bite. It typically

(c) Herpes simplex
(d) HIV

2010

429. Consider the following statements regarding folic acid :
1. It is needed for normal development of blood cells in the marrow.
2. It has a role in the synthesis of nucleic acids.
3. It is resistant to boiling.

Which of the statements given above is/are correct?
(a) 1 only
(b) 1 and 2
(c) 1 and 3
(d) 2 and 3

2010

430. With reference to the role of fibre in diet, consider the following statements :
1. It inhibits faecal mutagen synthesis.
2. It reduces post-prandial glucose.
3. It increases the transit time of food in the bowel.

Which of the above represent(s) the role of fibre in our diet?
(a) 1 only
(b) 1 and 2 only
(c) 2 only
(d) 1, 2 and 3

2010

431. Consider the following :
1. Night blindness
2. Corneal xerosis
3. Conjunctival xerosis
4. Keratomalacia

What is the correct sequence of the above in the progress of clinical presentation of vitamin A deficiency blindness?
(a) 1–2–3–4
(b) 1–3–2–4
(c) 1–3–4–2
(d) 2–1–4–3

2010

432. Consider the following drugs :
1. Rifampicin
2. Dapsone
3. Clofazimine
4. Minocycline

Which of the above drugs are used in the standard treatment of paucibacillary leprosy in adults?
(a) 1 and 2 only
(b) 1 and 4
(c) 2, 3 and 4
(d) 1, 2 and 3

2010

433. Consider the following hepatitis viruses :
1. Hepatitis A
2. Hepatitis B
3. Hepatitis C
4. Hepatitis E

Which of the above can be commonly transmitted through the faeco-oral route?
(a) 1 and 3 only
(b) 2, 3 and 4
(c) 1 and 4
(d) 1, 2 and 3

2010

434. Match List-I with List-II and select the correct answer using the code given below the Lists:

	List-I		**List-II**
A	Epidemic typhus	1	Rickettsia conorii
B	Murine typhus	2	Rickettsia tsutsuga-mushi
C	Scrub typhus	3	Rickettsia prowaze-kii
D	Indian tick ty-phus	4	Rickettsia typhi

(a) A-1 B-3 C-2 D-4
(b) A-1 B-4 C-2 D-3
(c) A-4 B-1 C-2 D-3
(d) A-3 B-4 C-2 D-1

435. Match List-I with List-II and select the correct answer using the code given below the Lists :

	List-I		**List-II**
A	A.Hard tick	1	Epidemic typhus
B	Sandfly	2	Oriental sore
C	Louse	3	Tularemia
D	Soft tick	4	Relapsing fever

Code
(a) A-1 B-3 C-2 D-4
(b) A-1 B-4 C-2 D-3

Click Here to Buy book on Amazon

(d) decrease in the concentration of circulating haemoglobin

2024

374. Mycetoma, a chronic, specific, granulomatous, destructive disease, involving the skin and subcutaneous tissue
(a) is a blood-borne infection
(b) involves the superficial structure only
(c) may be caused by fungi or bacteria
(d) frequently causes trophic changes

2022

375. For the treatment of kala-azar, the daily dose of miltefosine in a 3-year-old child who weighs 15 kg is
(a) 10 mg
(b) 20 mg
(c) 30 mg
(d) 40 mg

2022

376. Which one of the following is the commonest extra-salivary gland manifestation of mumps in adults?
(a) Pancreatitis
(b) Polyarthritis
(c) Hydrocephalus
(d) Orchitis

2022

377. All cases of severe measles and all cases of measles in areas with high case fatality rate need to be treated with which of the following vitamins?
(a) Vitamin A
(b) Vitamin C
(c) Vitamin D
(d) Vitamin K

2022

378. Which of the following drugs should be avoided in the first-line ART regimens because of its well recognized metabolic toxicities ?
(a) Zidovudine (AZT)
(b) Stavudine (d4T)
(c) Tenofovir (TDF)
(d) Lamivudine (3TC)

2021

379. Covaxin is a/an
(a) Live attenuated vaccine
(b) Inactivated whole virus vaccine
(c) Protein subunit vaccine
(d) Nucleic acid vaccine

2021

380. Major source of vitamin K_1 is:
(a) Fresh dark green vegetables
(b) Exposure of body to sunlight
(c) Citrus fruits
(d) Foods rich in polyunsaturated fatty acids

2020

381. In primary immune response, how much more antigenic dose is required to induce IgG antibodies as against the induction of IgM antibodies?
(a) 10 times more
(b) 25 times more
(c) 50 times more
(d) 100 times more

2020

382. What is the recommended dose regimen of Vitamin A for the treatment of early stages of Xerophthalmia?
(a) Single massive dose of 2 lac International Units (IU)
(b) 2 lac IU on two successive days
(c) 2 doses of 1 lac IU in two successive days
(d) 2 doses of 1 lac IU at a gap of one week

2020

NODIA

383. Endemic ascites occurs due to:
(a) Naturally occurring toxin
(b) Bacterial toxin
(c) Fungal toxin
(d) Viral toxin

2020

384. Systemic Inflammatory Response Syndrome (SIRS) is characterized by all of the following EXCEPT:
(a) Hyperthermia (>38°C)
(b) Platelet count (<1,00,000/mm^3)
(c) Tachypnoea (≥20/min)
(d) Hypothermia (<36°C)

2019

385. The drug of choice for chemoprophylaxis to health care personnel and close contacts of suspected or confirmed case of pandemic influenza A (H1N1) is:
(a) Zanamivir
(b) Oseltamivir
(c) Ribavirin
(d) Amantadine

NODIA

(b) Vitamin C
(c) Vitamin D
(d) Vitamin K

2012

419. Which of the following is a live attenuated vaccine?
(a) Hepatitis B Vaccine
(b) Japanese Encephalitis Vaccine
(c) Yellow Fever Vaccine
(d) Salk Vaccine

2012

420. Which of the following regimens is recommended for multibacillary leprosy in children 10–14 years of age?
(a) Rifampicin 450 mg once a month (under supervision) + Dapsone 50 mg daily (self administered) + Clofazimine 150 mg once a month (under supervision) and 50 mg every alternate day
(b) Rifampicin 600 mg once a month (under supervision) + Dapsone 100 mg daily (self administered) + Clofazimine 50 mg once a month (under supervision) and 25 mg every alternate day
(c) Rifampicin 450 mg once a month (under supervision) + Dapsone 50 mg daily (self administered)
(d) Rifampicin 600 mg once a month (under supervision) + Dapsone 50 mg daily (self administered)

2012

421. The causative organism of Chancroid is
(a) Haemophilus ducreyi
(b) Donovania granulomatis
(c) Chlamydia trachomatis
(d) Psittacosis lymphogranuloma group

2011

422. In measles, when do the Koplik's spots appear ?
(a) On the day that fever occurs
(b) On the day that rashes appear
(c) 1–2 days before the rashes appear
(d) 1–2 days before the fever occurs

2011

423. Which one of the following is the correct sequence of appearance for the Hepatitis B virus serological markers ?
(a) Anti-HBe, HBsAg, Anti-HBc, HBeAg
(b) HBsAg, HBeAg, Anti-HBc, Anti-HBe
(c) Anti-HBc, HBsAg, Anti-HBe, HBeAg
(d) HBeAg, Anti-HBe, Anti-HBc, HBsAg

2011

424. Which of the following is not associated with Acute Food Poisoning ?
(a) Onset with vomiting
(b) Tenesmus
(c) Leucocytosis
(d) High skin surface temperature

2011

425. Langhans' giant cells are diagnostic of
(a) lymphoma
(b) foreign-body granuloma
(c) typhoid Peyer's patch
(d) tuberculoma

2010

426. The percutaneous PAIR therapy used in the treatment of uncomplicated hepatic hydatid cyst can be associated with the following complications, except
(a) urticaria
(b) anaphylaxis
(c) hypotension
(d) vomiting

2010

427. Match List-I with List-II and select the correct answer using the code given below the Lists :

	List-I		**List-II**
A	Viral hepatitis	1	Enteric bacteria
B	Amoebic liver abscess	2	Echinococcus granulosus
C	Ascending cholangitis	3	Hepatitis A, B, C
D	Hydatid liver disease	4	Entamoeba histolytica

Code :
(a) A B C D → 3 4 1 2
(b) A B C D → 3 1 4 2
(c) A B C D → 2 4 1 3
(d) A B C D → 2 1 4 3

428. Which of the following is the most common congenital viral infection?
(a) Rubella
(b) Cytomegalovirus

Downloaded from www.pdf.tube

presents as localized lymphadenopathy near the scratch site, sometimes with fever and malaise. Diagnosis often involves serology for Bartonella. Chlamydia trachomatis causes various sexually transmitted or ocular infections, Coxiella burnetii causes Q fever, and Trypanosoma cruzi causes Chagas disease.

7. (b) Snail
Clonorchis sinensis (the Chinese liver fluke) has a life cycle requiring two intermediate hosts. The first host is a freshwater snail, where the parasite undergoes several larval stages. The second host is typically a freshwater fish that humans consume undercooked, acquiring infection. Dogs, sheep, or vegetation are not the initial intermediate host. Correct sanitation and thorough cooking of freshwater fish are essential to prevent Clonorchis infection.

8. (c) Loa loa
Loa loa, the African eye worm, causes loiasis. Characteristic Calabar swellings" are transient edematous areas often near joints, resulting from localized hypersensitivity to migrating worms. The adult worm can also cross the conjunctiva, leading to visible migration in the eye. Onchocerca volvulus causes river blindness, Mansonella perstans is another filarial parasite, and Brugia malayi causes lymphatic filariasis.

9. (d) Onchocerca volvulus
Onchocerca volvulus, transmitted by blackflies (Simulium species), causes onchocerciasis or river blindness." Eye involvement can lead to corneal opacities and characteristic snowflake" lesions. Chronic infection may also produce scarring and eventual blindness. Brugia malayi and Mansonella perstans primarily cause lymphatic or subcutaneous manifestations, whereas Loa loa presents differently (e.g., eye worm migration and Calabar swellings).

10. (c) 1, 3 and 4
Clonorchis sinensis, Fasciola hepatica, and Opisthorchis felineus are all liver (hepatobiliary) flukes, infecting the biliary tracts of humans or animals. Mansonella perstans, however, is a filarial nematode, not a trematode. Clonorchis and Opisthorchis are linked to undercooked freshwater fish, while Fasciola is often acquired by ingesting watercress or other aquatic plants contaminated with the infective stage.

11. (b) Trichinella spiralis
Trichinella spiralis is a nematode acquired by eating undercooked meat (often pork) containing encysted larvae. Both animals and humans can serve as hosts, creating a zoonotic cycle. Taenia saginata is a cestode (tapeworm from cattle), while Fasciola hepatica and Fasciolopsis buski are trematodes (flukes). Thus, Trichinella is the only nematode among the listed parasites with clear zoonotic transmission.

12. (c) 1, 3 and 4
BCG (Bacillus Calmette–Guérin) is indeed a live-attenuated vaccine (1) derived from Mycobacterium bovis (3). It is well known for its role in preventing severe forms of tuberculosis in children and is considered highly immunogenic (4), though not 100% protective against pulmonary TB. However, BCG is not administered intramuscularly; rather, it is given intradermally, making statement (2) incorrect.

NODIA

13. (d) 1, 2 and 3
HIV-infected individuals are more susceptible to infections and complications, so preventive immunizations are important. Hepatitis B vaccine, influenza vaccine (annually), and pneumococcal vaccines (both conjugate and polysaccharide forms, depending on guidelines) are recommended. These help reduce the burden of severe disease. Other vaccines, such as Tdap and varicella (in certain conditions), may also be indicated, but 1, 2, and 3 are universally recommended for HIV-positive patients to decrease morbidity.

14. (d) 1, 2 and 3
Living at higher latitudes (less intense sun exposure) predisposes to Vitamin D deficiency (1). Darker skin has higher melanin, which reduces UV penetration and endogenous Vitamin D synthesis (2). In established deficiency, sensible exposure to UV light

immuno compromised patients), mucormycosis became a notorious complication in India. Histoplasmosis, coccidioidomycosis, and sporotrichosis have different epidemiological profiles and are typically less acutely necrotizing than mucormycosis.

45. (d) Sporotrichosis
Sporotrichosis, caused by Sporothrix schenckii (a dimorphic fungus), typically follows a thorn prick or similar minor trauma. It produces a classic ascending" chain of nodular lesions along lymphatic drainage. Mycetoma (Madura foot) is usually from various fungi/bacteria but often presents differently in foot or hand with draining sinuses. Aspergillosis and mucormycosis are more commonly inhaled and cause invasive or allergic disease, rather than the typical thorn inoculation route of Sporothrix.

46. (a) 1, 2 and 3
Coccidioidomycosis (Valley fever") is a dimorphic fungal infection (1). Primary pulmonary infection often features mild respiratory symptoms, fever, chest pain, and can be accompanied by arthralgias/erythema nodosum (2). Progressive infection leads to more pronounced systemic symptoms including weight loss and can manifest as pneumonia (3). Coccidioidal meningitis, however, is serious and requires prolonged antifungal therapy (4 is false).

47. (d) 1, 2 and 3
Elapid snakes (e.g., cobras, kraits) have neurotoxic venom that can cause muscle weakness, ptosis, and respiratory paralysis. Victims should be kept still to slow systemic spread of venom (1). Pressure immobilization bandaging is recommended in many guidelines for neurotoxic bites (2). Ptosis, diplopia, and bulbar weakness are common early signs of neurotoxicity (3).

48. (a) active replication of virus in the liver
HBeAg is a marker of high-level HBV replication and infectivity. Its presence indicates that the virus is actively replicating in hepatocytes, often correlating with higher viral loads and greater infectivity. It does not by itself guarantee acute liver failure, nor does it imply an inactive carrier state. Chronic infection may or may not show HBeAg, depending on whether the virus is in a high-replicative or low-replicative phase.

49. (d) high titres of anti-HDV antibody, IgG type
When acute HBV and HDV co-infection occurs and the patient fully recovers, the immune response eventually shifts from IgM (acute) to IgG (long-term) anti-HDV antibodies, reflecting resolved infection and immune memory. An early high IgM level would correspond to active or recent infection, but full recovery" implies convalescence and thus high IgG titers.

50. (b) urine pH 7.5–8
In poisonings with weak acids (e.g., salicylates), raising the urine pH promotes excretion by trapping the ionized form of the toxin in the renal tubules (ion trapping"). Typically, we target a urine pH of about 7.5–8, achieved by administering IV sodium bicarbonate. Significantly altering blood (serum) pH above 7.5–7.55 can be dangerous; the therapeutic goal is only to alkalinize the urine.

51. (a) methemoglobinemia
Severe methemoglobinemia (especially if resistant to or contraindicating methylene blue) may warrant exchange transfusion to rapidly reduce dangerous methemoglobin levels. While dialysis or hemoperfusion are often used for certain drug overdoses (e.g., theophylline, carbamazepine), exchange transfusion is not standard for them. In life-threatening methemoglobinemia with compromised oxygen delivery, exchanging the patient's blood can quickly restore normal hemoglobin.

52. (b) Massage
In frostbite management, rapid rewarming in a water bath of about 40–44°C is a key initial step, combined with proper wound care, analgesia, and sterile dressing. Vigorous rubbing or massage of the frostbitten area is contraindicated because it can cause mechanical injury to already-damaged tissues and exacerbate tissue loss. Cleaning the injured area with mild soap and providing pain relief are appropriate

Click Here to Buy book on Amazon

iron poisonings typically present with other specific toxicities, not primarily hypothermia.

22. (b) Only two pairs

1. Pink → Cephalosporin : Correct. Some cephalosporins (like cefdinir) can cause pink or reddish urine discoloration due to pigment formation.
2. Brown → Chloroquine : Correct. Chloroquine can cause dark brown to black discoloration of urine.
3. Greenish blue → Phenazopyridine : Incorrect. Phenazopyridine usually causes orange to red-orange urine, not greenish blue. Greenish blue urine is typically seen with methylene blue or amitriptyline.
4. Red-orange → Amitriptyline : Incorrect. Amitriptyline can cause green or blue-green urine, not red-orange.

Correct pairs: (1) and (2)

23. (b) Only two pairs

Lithium toxicity can indeed prolong the PR interval and cause AV conduction changes. Amiodarone may prolong QTc (though it carries a relatively lower risk of torsades de pointes compared to other QT-prolonging drugs). Kerosene ingestion does not typically produce a wide QRS (which is more characteristic of tricyclic antidepressant overdose). Organophosphates generally cause bradycardia rather than tachycardia (due to cholinergic excess). Thus, only pairs 1 and 2 are correct.

24. (a) systemic hypothermia

Osborn waves (also known as J waves) are highly characteristic of severe hypothermia. On the ECG, they appear as a positive deflection at the J point (the junction between the QRS complex and ST segment), creating a 'camel-hump' or 'late delta' shape. While different wave changes can be seen in pericarditis, myocarditis, or Brugada syndrome, the classic association for Osborn waves is systemic hypothermia (typically core temperatures < 30 °C).

25. (d) 2, 3 and 4

Hepatitis C is primarily transmitted via blood and blood products. Intravenous drug abuse (2) is a common risk, vertical transmission (3) can occur from mother to child, and sharing potentially blood-contaminated personal items such as toothbrushes and razors (4) also increases risk. Faeco-oral transmission (1) is characteristic of hepatitis A and E, not hepatitis C. Therefore, 2, 3, and 4 are valid risk factors for acquiring hepatitis C.

26. (c) anti-HBc IgM

The 'window period' in hepatitis B infection is when HBsAg has become undetectable but anti-HBs has not yet appeared. During this interval, IgM anti-HBc is the main marker in the patient's serum and indicates recent/acute infection. Later, IgM anti-HBc can switch to IgG anti-HBc, which remains positive lifelong. Anti-HBsAb eventually appears after clearance or successful vaccination, and HBeAg reflects active viral replication but is not the key marker for identifying the window phase.

NODIA

27. (a) 1, 3 and 4

Pegylated interferon (PEG-IFN) for chronic hepatitis B is indeed less well tolerated than nucleos(t)ide analogues (Statement 1 is correct). In practice, clinically meaningful resistance to PEG-IFN is not a major issue, so resistance is common" (Statement 2) is typically considered false. PEG-IFN is generally not advised in advanced or decompensated cirrhosis because of safety concerns; hence, many regard it as not useful" in cirrhosis (Statement 3). The standard course for PEG-IFN in chronic HBV is weekly injections for 48 weeks (Statement 4).

28. (b) Plasmodium vivax

The Duffy antigen (also called the Duffy blood group, or DARC) on red blood cells is the key receptor used by Plasmodium vivax for entry into erythrocytes. Individuals who are Duffy-negative," common in certain African populations, exhibit relative resistance to infection by P. vivax because the parasite cannot bind effectively. This receptor does not play a comparable role for other intestinal protozoa like Giardia, Entamoeba, or Balantidium.

29. (d) 1, 2, 3 and 4
All these viruses—HBV, HCV, HIV, and Parvovirus B19—are recognized as potential transfusion-transmitted infections, though mandatory screening drastically reduces the risk for hepatitis B, hepatitis C, and HIV. Parvovirus B19 can also be transmitted via blood products, potentially causing significant complications (like aplastic crisis) in vulnerable populations. Hence all four are transmissible via infected blood.

30. (a) Liver
Plasmodium vivax and Plasmodium ovale form dormant liver-stage parasites called hypnozoites. Primaquine is uniquely effective at eradicating these latent forms residing in the hepatocytes. This is termed the radical cure," which prevents relapse of malaria. Blood schizonticides, such as chloroquine, only clear the parasitemia from red blood cells but do not affect the liver hypnozoites. Hence, primaquine targets parasites in the liver, not in peripheral blood, brain, or bone marrow.

31. (d) 1, 2 and 3
HAND represents a spectrum of neurocognitive impairment in HIV-infected individuals. It ranges from asymptomatic neurocognitive impairment (mild deficits on testing but no apparent daily dysfunction), to mild neurocognitive disorder (deficits that mildly affect daily life), up to HIV-associated dementia (severe impairment). All three categories—(1), (2), and (3)—fall under HAND classification, reflecting the varying degrees and presentations of cognitive and behavioral manifestations seen in HIV infection.

32. (d) 1, 2, 3 and 4
Neurocysticercosis can manifest with personality changes and seizures if larvae lodge in the brain (1). Subcutaneous cysticerci often present as palpable nodules that can be surgically removed for diagnostic histopathology (2). Neurological symptoms commonly flare once the parasites begin to die, provoking an inflammatory response (often years later) (3). Antiparasitic therapy typically includes albendazole or praziquantel, and a 10-day praziquantel course can be used under medical guidance (4). Therefore, all four statements are correct.

33. (a) 1 and 2
Strongyloides stercoralis typically infects the upper small intestine (duodenum), so statement (1) is correct. Larva currens" is a characteristic, rapidly moving, serpiginous rash (often on the buttocks and abdomen), making (2) correct. Ivermectin is actually the treatment of choice—so (3) is false. Disseminated or hyper infection syndrome usually occurs in immuno compromised, not immunocompetent, patients, so (4) is also false.

34. (c) 1, 2 and 4
Cutaneous larva migrans (commonly from animal hookworms) is indeed a frequent skin eruption among travelers (1), typically acquired by walking barefoot on contaminated beaches (2). It produces intensely pruritic serpiginous tracks (so statement 3 is incorrect). The larvae migrate under the skin at rates often approaching 1–2 cm (sometimes up to 2–3 cm) per day (4). This explains the characteristic creeping" lesion.

35. (c) 1, 3 and 4
Repeated stool examinations every 2–3 days help detect intermittently shed Giardia cysts (1). Most infections result from ingesting Giardia cysts in contaminated water (3). The organism is a flagellated protozoan, producing both cyst and trophozoite forms (4). Duodenal aspirates (often via string test) rather than a colonoscopy aspirate provide high diagnostic yields, so (2) is incorrect.

36. (a) Group A Streptococcus
Necrotizing fasciitis (NF) is classified into types based on microbiology. Type 2 NF is most commonly caused by Group A Streptococcus (Streptococcus pyogenes), either alone or sometimes in combination with Staphylococcus aureus. Type 1 NF is polymicrobial (aerobes + anaerobes), Vibrio vulnificus–related NF is often associated with seafood exposure, and Clostridium septicum–linked necrotizing

Downloaded from www.pdf.tube

infections are another distinct entity. The classic flesh-eating" disease with a rapidly progressing course is typically Group A Streptococcus.

37. (c) 1 and 3 only
Following significant varicella exposure, a pregnant woman who lacks immunity should receive varicella-zoster immune globulin (VZIG) to prevent or attenuate infection (1). The live attenuated varicella vaccine (2) is contraindicated in pregnancy. If she shows signs of infection or is at high risk for complications, acyclovir (3) may be administered, though timing and severity guide its use. Prednisolone (4) is not indicated for routine prophylaxis or mild varicella in pregnancy.

38. (b) 2, 3 and 4 only
Listeria monocytogenes is resistant to most cephalosporins, making ceftriaxone (1) generally ineffective as monotherapy. The usual first-line therapy is ampicillin (3), often combined with gentamicin (2) for synergy. Patients allergic to penicillins can be treated with trimethoprim-sulfamethoxazole—which corresponds to sulfamethoxazole (4) paired with trimethoprim, though only sulfamethoxazole is listed here. Hence 2, 3, and 4 are recognized treatment options for Listeria infection.

39. (a) 1, 2 and 3
Rickets (vitamin D deficiency) in children commonly manifests with craniotabes (1)—a softening of skull bones, frontal/parietal bossing (2), and hypotonia or muscle weakness (3). Radiographic findings typically show widened, cupped, and frayed metaphyses—not shrinking" of the epiphyses, making (4) incorrect. Therefore, 1, 2, and 3 represent classic signs of rickets in children.

40. (a) 1 and 2 only
Scorpion venom is indeed delivered via the sting at the end of the tail (1). Many scorpion stings cause localized pain and mild systemic symptoms without life-threatening effects (2). Treatment typically includes analgesics, sedation, and sometimes alpha-blockade (e.g. prazosin) for severe envenomation by certain species. Anticholinergics are not standard therapy, so (3) is incorrect. In severe cases, scorpion antivenom plus supportive care can be lifesaving.

NODIA

41. (d) 2, 3 and 4
Kyasanur Forest Disease (KFD) is primarily endemic to the forested regions of Karnataka in southwestern India, not the Northeast (so 1 is false). The virus is maintained in monkey populations, with ticks serving as vectors (2 and 3 are true). An inactivated vaccine for at-risk populations in endemic areas is indeed available (4). Patients typically present with high fever, hemorrhagic tendencies, and significant morbidity.

42. (d) 1, 2 and 3
Brucellosis often presents with undulant fever," which can fluctuate over weeks to months (1). Joint pain, arthritis, and spinal involvement are common musculoskeletal complications (2). Brucella species are facultative intracellular pathogens, surviving within macrophages (3). Untreated, the illness can become chronic with systemic and organ-specific manifestations. All three statements are true.

43. (b) Praziquantel
Praziquantel is the primary treatment for all major forms of schistosomiasis, targeting Schistosoma hematomas, S. mansoni, and S. japonicum. It increases the parasite's membrane permeability to calcium, leading to spastic paralysis and death of the worms. Albendazole and ivermectin are more suited for nematode (roundworm) infections; doxycycline is an antibacterial (and is sometimes used for certain filarial infections), but not standard for schistosomiasis.

44. (b) Mucormycosis
Mucormycosis (caused by Mucorales fungi such as Rhizopus) can lead to very aggressive infections, with black necrotic eschar and rapid destruction of sinuses, orbit, palate, and brain in susceptible individuals. During COVID-19 surges (especially in poorly controlled diabetic or

management emphasizes high-quality CPR, administering medications (e.g., epinephrine), and seeking reversible causes (like hypoxia or hypovolemia).

77. (b) Anti-HBs
After receiving the Hepatitis B vaccine, the primary protective antibody is Anti-HBs (antibodies to the hepatitis B surface antigen). This indicates immunity either from successful vaccination or from recovery after natural infection. In contrast, HBsAg (hepatitis B surface antigen) signifies an ongoing infection, while Anti-HBc (antibodies to hepatitis B core antigen) typically indicates past or current infection. HBcAg is not measurable in peripheral blood in routine practice. Therefore, Anti-HBs is the key marker of successful immunization.

78. (a) Trypanosoma cruzi
Trypanosoma cruzi, which causes Chagas disease, may infect autonomic ganglia in the esophagus. This leads to a dilation and dysfunction of the organ (megaesophagus) that presents very similarly to idiopathic achalasia—namely, progressive dysphagia and esophageal motility problems. Other listed organisms do not typically produce an achalasia-like syndrome. Schistosoma haematobium affects the urinary tract; Mycobacterium leprae affects skin and nerves; Plasmodium falciparum causes malaria, not an esophageal motility disorder.

79. (d) Clostridium difficile
Clostridium difficile overgrowth in the colon—often triggered by antibiotic use—causes pseudomembranous colitis, characterized by diarrhea (sometimes severe), abdominal pain, and typical pseudomembrane formation on endoscopy. It is not associated with Entamoeba histolytica (which causes amebic dysentery), Salmonella typhi (typhoid fever), nor routine E. coli infection. C. difficile produces toxins that damage the colonic mucosa, leading to the hallmark pseudomembranes.

80. (a) Slapped cheek rash
In children, Parvovirus B19 commonly causes erythema infectiosum" (Fifth disease), which presents with a bright red, slapped cheek" facial rash. This distinguishing feature contrasts with the malar rash (butterfly rash") of lupus, melasma-like hyperpigmentation, or the Christmas tree rash" seen in pityriasis rosea. The slapped cheek rash can be followed by a more diffuse, lacy rash on the body, but the name itself derives from the dramatic red flush on the child's cheeks.

81. (a) 1, 2 and 3
Different Bartonella species cause various human diseases: Bartonella henselae causes cat scratch disease (1), Bartonella quintana causes trench fever (2), and Bartonella bacilliformis causes Carrion's disease (3). Anisakiasis (4) is an intestinal infection from the Anisakis worm in undercooked seafood and is unrelated to Bartonella. Additionally, Bartonella species can lead to culture-negative endocarditis, making them notable pathogens in certain cardiovascular infections.

82. (c) Orientia tsutsugamushi and Trombiculid mite
Scrub typhus is caused by Orientia (formerly Rickettsia) tsutsugamushi, transmitted by the bite of infected chiggers (the larval stage of trombiculid mites). Rickettsia rickettsii causes Rocky Mountain spotted fever (via ticks), Rickettsia prowazekii causes epidemic typhus (via body lice), and lice also transmit trench fever (Bartonella quintana). The specific vector for scrub typhus is the trombiculid (chigger) mite, making option (c) correct.

83. (a) 1, 2 and 3 only
In classical descriptions, risus sardonicus" (1) is indeed observed in tetanus due to facial muscle spasm; lockjaw" (trismus) is a key feature, sometimes stated in older question banks as painless," though in reality it is usually quite distressing. The toxin is actually an exotoxin (tetanospasmin) that travels via nerve endings (the question's term endotoxin" in 2 is imprecise but often accepted in older exams). While hysteria can produce muscle contractions mimicking tetanus, many sources traditionally exclude it from correct statements."

Click Here to Buy book on Amazon

measures, but massage may dislodge clots or damage fragile tissues.

53. (b) Na ~80, K 20, Cl ~70, Energy ~54 kcal/L
The newer reduced osmolarity WHO Oral Rehydration Solution (ORS) has approximately 75–80 mmol/L sodium, 20 mmol/L potassium, about 75 mmol/L glucose (13.5 g/L, providing ~54 kcal/L), and a total osmolarity of ~245 mOsm/L. This improved formula reduces the risk of hypernatremia and decreases stool output in diarrheal diseases.

54. (d) 1, 2 and 3
In tuberculous meningitis, direct AFB smears of CSF are often negative because the bacterial load is low. Culture on Lowenstein–Jensen medium or similar systems (e.g., MGIT) remains the definitive gold standard," though it is slow. The Xpert MTB/RIF (GeneXpert) assay provides a rapid molecular test with reasonable sensitivity and good specificity, and is recommended as an initial test for suspected TB meningitis. Thus all three statements are valid.

55. (a) Cerebral toxoplasmosis
Cerebral toxoplasmosis in HIV typically emerges when the CD4 count falls below ~100 cells/μL. Tuberculosis and herpes zoster can appear at higher CD4 counts (though they become more frequent with further immunosuppression), and Pneumocystis pneumonia is more common under CD4 <200 cells/μL (though occasionally may occur slightly above 200). Toxoplasmosis is particularly tied to advanced immunodeficiency, making it least likely above 100 cells/μL among these choices.

56. (c) Urgent pericardiocentesis
Raised jugular venous pressure, muffled (or absent) heart sounds, and hypotension strongly suggest cardiac tamponade (Beck's triad). In the context of trauma/blast injury, penetrating injury to the heart or hemorrhagic effusion can rapidly cause tamponade physiology. The immediate life-saving maneuver is pericardiocentesis to decompress the pericardium. Needle thoracostomy is for suspected tension pneumothorax (usually with absent breath sounds on one side, not absent heart sounds).

57. (d) Organophosphorus poisoning
Excess muscarinic symptoms (salivation, lacrimation, urination, defecation, GI upset, emesis) plus nicotinic signs (muscle fasciculations, weakness) and CNS involvement strongly suggest organophosphate poisoning, which inhibits acetylcholinesterase. Miosis, bronchorrhea, and sweating are hallmark cholinergic signs. Corrosives cause oropharyngeal burns; phosphides typically cause severe metabolic derangements but not classic cholinergic features.

58. (c) Copper sulphate poisoning
In acute copper sulphate poisoning, patients present with GI symptoms (abdominal pain, vomiting, diarrhea), possible hemolysis, and characteristic methemoglobinemia (which can manifest as cyanosis unresponsive to oxygen). Aluminum or zinc phosphide poisonings primarily cause severe shock, metabolic acidosis, and do not characteristically produce methemoglobinemia. Lead poisoning is typically more chronic and does not commonly present with acute methemoglobinemia.

59. (b) 1, 2 and 4
The SOFA score evaluates six organ systems:
1. Respiratory function (PaO_2/FiO_2),
2. Coagulation (platelet count),
3. Liver (bilirubin),
4. Cardiovascular (MAP or vasopressor requirement),
5. CNS (Glasgow Coma Scale),
6. Renal (creatinine or urine output).

White blood cell count is not one of the standard SOFA parameters. Thus bilirubin (1), platelets (2), and creatinine (4) are included.

60. (c) 1, 3 and 4
When correcting vitamin D deficiency, serum calcium usually recovers faster than parathyroid hormone (PTH) normalizes (1). Combining vitamin D with calcium is standard to optimize bone health (3). Over-replacement can cause hypercalcemia and lead to nephrolithiasis (4).

Downloaded from www.pdf.tube

(sunlight) is recommended, alongside dietary adjustments or supplementation (3). All three statements accurately reflect risk factors and management advice for preventing or correcting Vitamin D deficiency.

15. (d) 1, 2 and 3
Acetaminophen (paracetamol) has minimal effects on platelet function, unlike NSAIDs, so it does not prolong bleeding time. It is primarily metabolized in the liver; in overdose, a toxic intermediate (NAPQI) accumulates, causing hepatocellular injury or necrosis. At therapeutic doses, it is a safe, effective, non-narcotic (non-opioid) analgesic and antipyretic, widely used in mild to moderate pain and fever.

16. (d) 1, 2, 3 and 4
Secondary (AA) amyloidosis can result from chronic infections (e.g., TB, chronic osteomyelitis) or chronic inflammatory conditions (e.g., rheumatoid arthritis), leading to deposition of serum amyloid A–derived fibrils. Multiple myeloma often leads to AL amyloidosis (light-chain related). Thus, all four listed conditions may produce acquired systemic amyloidosis through different pathways of pathological protein deposition.

17. (b) 2, 3 and 4
ARDS typically unfolds in phases:
1. Exudative phase: ~first week (up to ~day 7).
2. Proliferative phase: ~day 7 to ~day 14 or 21, marked by proliferation of type II pneumocytes (2).
3. Fibrotic phase can follow if injury persists.

Low tidal volume ventilation (≈6 mL/kg) reduces ventilator-induced lung injury and improves outcomes (3). PaO_2/FiO_2 ≤100 mm Hg defines severe ARDS (4). Statement (1) incorrectly places the exudative phase starting at day 7.

18. (c) 1, 2 and 4
OPIDN is a delayed neuropathy arising a couple of weeks after certain organophosphate poisonings (particularly those inhibiting neuropathy target esterase," e.g., triorthocresyl phosphate). It primarily manifests as a motor polyneuropathy, but may also have some sensory involvement—therefore statement (3) is oversimplified. Therapy is mostly supportive; no definitive antidote reverses established nerve damage. Physiotherapy can help maintain muscle function, limiting contractures and deformities (4).

19. (d) 1, 2, 3 and 4
Paracetamol (acetaminophen) overdose produces a toxic metabolite (NAPQI) that depletes glutathione and injures hepatocytes (1). N-acetylcysteine (NAC) replenishes glutathione, preventing or limiting liver damage—best if given within 8 hours (3). Because NAC is so effective, guidelines often recommend starting it in suspected high-risk overdoses (2). Methionine can also donate sulfhydryl groups but is considered less effective and is usually reserved when NAC is unavailable (4).

20. (b) Iron
Whole bowel irrigation (WBI) involves administering large volumes of a polyethylene glycol solution to flush the entire GI tract. It is particularly helpful when toxic substances (e.g., iron tablets, sustained-release medications, drug packets) cannot be bound by activated charcoal or removed effectively by gastric lavage. Iron overdose can cause severe toxicity, and WBI helps remove unabsorbed tablets from the gut. Alcohol, kerosene, or organophosphates are absorbed differently and do not routinely warrant WBI.

21. (b) Chlorpromazine
Chlorpromazine is a typical antipsychotic (phenothiazine) that can impair thermoregulatory mechanisms in the hypothalamus, predisposing to hypothermia (especially in overdose or under certain conditions). While alcohol can contribute to hypothermia through peripheral vasodilation and suppressed shivering reflex, among these listed options, chlorpromazine overdose is most directly associated with interfering in the body's temperature regulation set-point. Digoxin and

NODIA

The assertion about platelets being poor in ascorbate" is less clinically relevant here, and overshadowed by the known truth of statements 3 and 4.

69. (c) 1, 3 and 4
Cutaneous synthesis (via sunlight exposure) is indeed the principal natural source of vitamin D (1). Seasonal and latitudinal factors reduce UVB availability in winter, lowering vitamin D synthesis (3). Summer sun exposure can build body stores that are tapped in winter (4). However, vitamin D deficiency typically manifests with proximal muscle weakness rather than purely distal, making statement 2 inaccurate for most classic descriptions.

70. (c) Pellagra, Niacin therapy
Pellagra is classically due to niacin (vitamin B3) deficiency, with the triad of dermatitis (often photosensitive), diarrhea, and dementia (or delirium). Diets relying predominantly on corn/maize without proper nixtamalization can lead to inadequate niacin and tryptophan intake. Chronic alcoholism further exacerbates nutritional deficiencies. Management involves niacin supplementation and addressing the underlying nutritional deficits.

71. (d) 2, 3 and 4
The classic King's College Hospital criteria for acute liver failure from paracetamol include:
1. Arterial pH < 7.3 (after resuscitation), or
2. All of the following: Grade III/IV encephalopathy, INR 6.5 (often PT 100 sec), and creatinine 3.4 mg/dL.

Extremely high transaminases are common but not an official standalone threshold for transplant referral. Hence 2 (acidemia), 3 (severe coagulopathy), and 4 (renal dysfunction) are part of the recognized triggers.

72. (a) Iron
Common toxic causes of an elevated anion gap metabolic acidosis include MUDPILES": Methanol, Uremia, Diabetic ketoacidosis, Propylene glycol/Paraldehyde, Isoniazid/Iron, Lactic acidosis, Ethylene glycol, and Salicylates. Iron overdose can cause severe lactic acidosis and shock, leading to a high anion gap. By contrast, digoxin, rifampicin, or beta blockers do not typically present with that classic anion gap acidosis.

73. (a) Phenobarbitone
Urinary alkalinization (raising urine pH) promotes ionization of weak acids like phenobarbital, trapping them in the renal tubules (ion trapping") and enhancing excretion. Lithium, benzodiazepines (e.g., alprazolam), and phenytoin do not respond well to alkalinization for clearance. Salicylates are another classic example of a weak acid amenable to forced alkaline diuresis.

74. (b) Atropine
Organophosphates inhibit acetylcholinesterase, causing an accumulation of acetylcholine with prominent muscarinic symptoms (salivation, lacrimation, urination, defecation, GI upset, bradycardia, etc.). Atropine blocks muscarinic receptors and thus quickly relieves these cholinergic (muscarinic) manifestations. Pralidoxime (2-PAM) helps restore cholinesterase activity (mainly addressing nicotinic symptoms), but atropine remains the primary agent for muscarinic toxicity reversal.

75. (c) 30 : 2
Current adult CPR guidelines recommend a compression-to-ventilation ratio of 30:2 for both single and two-rescuer CPR (unless an advanced airway is in place). Rescuers deliver 30 compressions at a rate of 100–120 per minute, followed by 2 breaths. This approach ensures adequate perfusion pressure and oxygenation. The 30:2 ratio simplifies training and is designed to minimize interruptions in chest compressions, thereby maximizing blood flow to vital organs.

76. (d) Pulseless electrical activity
Non-shockable rhythms include pulseless electrical activity (PEA) and asystole. In PEA, the ECG may show organized complexes, but there is no effective cardiac contraction or palpable pulse. Defibrillation targets disorganized or malignant rhythms such as ventricular fibrillation or pulseless ventricular tachycardia; hence PEA is not treated by shocks. Instead,

Click Here to Buy book on Amazon

While monitoring calcium levels (rather than routinely checking serial vitamin D levels") is typically done, true vitamin D toxicity remains relatively uncommon, making statement #2 (as worded) less accurate.

61. (d) 1, 2, 3 and 4
In HIV-infected individuals, multiple pathologies can cause lymphadenopathy. Kaposi's sarcoma (1) can involve lymph nodes; lymphoma (2)—especially Non-Hodgkin's—often presents with node enlargement; tuberculosis (3) frequently involves lymph nodes (scrofula); and persistent generalized lymphadenopathy (4) is itself a recognized entity in HIV. So all four conditions are valid causes of lymphadenopathy in HIV patients.

62. (c) Voriconazole
In neutropenic cancer patients, nodular lung lesions with a halo sign" or air-crescent sign" on CT are highly suggestive of invasive pulmonary aspergillosis. The recommended first-line therapy for invasive aspergillosis is voriconazole. Colistin targets resistant gram-negative bacterial infections; GM-CSF helps boost WBC counts but is not an antifungal; and piperacillin-tazobactam addresses bacterial pathogens.

63. (c) Streptococcus pneumoniae
Postsplenectomy patients are vulnerable to overwhelming sepsis by encapsulated organisms, particularly Streptococcus pneumoniae (the most common and most dangerous). Vaccinations (pneumococcal, meningococcal, and H. influenzae type b) are recommended, as well as prophylactic penicillin in some cases. While other bacteria can also be problematic, S. pneumoniae stands out as the most critical to prevent in asplenic individuals.

64. (c) Cytomegalovirus esophagitis
In HIV patients, large linear or serpiginous" ulcers in the distal esophagus, often with relatively normal adjacent mucosa, are classic for CMV esophagitis. Herpes simplex typically causes small, deep punched-out" ulcers. Candida esophagitis often shows white plaques or more diffuse involvement. GERD ulcers are not usually described as serpiginous" and do not typically appear in an otherwise normal mucosa with such a pattern.

65. (b) PGU refers to non-gonococcal urethritis in men treated earlier with single dose of penicillin Post gonococcal urethritis" arises when a man is treated for gonorrhea (traditionally with a single dose regimen that covers Neisseria gonorrhoeae) but concurrently has another organism—commonly Chlamydia trachomatis—that remains untreated. After the gonorrhea is eradicated, urethritis persists or recurs, now due to a non-gonococcal" pathogen. Hence the correct definition is (b). Combination therapy (e.g., ceftriaxone plus doxycycline or azithromycin) is recommended to prevent this scenario.

NODIA

66. (a) Streptomycin and Doxycycline
The classical gold standard" regimen for adult brucellosis is Doxycycline (usually 6 weeks) plus Streptomycin (2–3 weeks). This combination provides high efficacy and reduces relapse rates. Alternatives include doxycycline plus rifampin, particularly if streptomycin injections are not feasible, but historically the streptomycin–doxycycline combination is considered most definitive.

67. (c) Blood transfusion
The risk of HIV transmission from a single transfusion of infected blood can exceed 90%, making it the highest-risk exposure route in this list. Mother-to-child transmission (such as via vaginal delivery) is significant overall but typically depends on maternal viral load and other factors. Vaginal intercourse and needles tick injuries carry lower—but still clinically important—single-exposure risks.

68. (d) 3 and 4
Vitamin C (ascorbic acid) is heat labile, not heat stable, so statement 1 is incorrect. Perifollicular hyperkeratosis and corkscrew hairs are classic features of scurvy (3). Infants on exclusively boiled milk develop vitamin C deficiency (4) because heating destroys ascorbic acid.

84. (a) 1, 2 and 3
Standard prophylaxis options for travelers to regions with chloroquine-resistant malaria often include atovaquone–proguanil or doxycycline. Mefloquine, however, is relatively contraindicated in patients with a history of depression or seizures because of its neuropsychiatric side effects and lowered seizure threshold. Although in real-world practice chloroquine–proguanil is not favored in India due to falciparum resistance, older questions often consider it safe" from the standpoint of a seizure/depression history. Hence among the listed choices, (1), (2), and (3) are acceptable, excluding mefloquine.

85. (a) 1 and 2 only
Both Ascaris lumbricoides and Strongyloides stercoralis have larval migratory phases that pass through the lungs, which can cause respiratory or eosinophilic reactions (Löffler's syndrome). Onchocerca volvulus primarily affects subcutaneous tissues and the eyes (river blindness), rather than undergoing a significant pulmonary migration. Hence only statements (1) Ascaris and (2) Strongyloides share the classic lung phase" during their life cycles.

86. (b) 2, 3 and 4
Amphotericin B is actually broad-spectrum (so statement 1 is false). It is well known to cause nephrotoxicity (2), is not orally absorbed (3), and lipid formulations (e.g., liposomal Amphotericin B) generally have reduced renal toxicity (4). Hence statements 2, 3, and 4 are correct.

87. (a) Rhizopus
Mucormycosis (sometimes dubbed black fungus") is most often caused by fungi in the Mucorales order, notably Rhizopus species. These aggressive infections typically occur in immuno compromised or diabetic patients and can invade blood vessels, causing tissue necrosis. Aspergillus, Candida, and Histoplasma cause other distinct fungal infections but do not produce classic mucormycosis.

88. (c) 1, 3 and 4
Malaria, filariasis (e.g., Wuchereria bancrofti), and dengue fever are transmitted by various mosquito species (Anopheles for malaria, Culex or Anopheles for filariasis, Aedes for dengue). Typhus, in contrast, is typically transmitted by lice (epidemic typhus) or fleas (endemic typhus), not mosquitoes. Therefore, (1), (3), and (4) are the correct mosquito-borne infections.

89. (d) Triceps skin fold < 3 mm
Marasmus is a form of severe malnutrition characterized by marked wasting of subcutaneous fat and muscle. A key clinical indicator is very low triceps skinfold thickness (often <3 mm), reflecting loss of fat stores. While low albumin can be seen in protein–energy malnutrition, that is more classically associated with kwashiorkor. Anergy can occur but is not as specific a hallmark" sign as the profound thinning seen in marasmus.

90. (c) Complement-mediated destruction of CD59(–) red blood cells
PNH arises from an acquired mutation (PIGA gene) that impairs the synthesis of GPI-anchored proteins, including CD55 and CD59, which protect RBCs against complement. Without these protectors, RBCs are highly susceptible to complement-mediated lysis, especially under low pH conditions at night. This process is not driven by ABO incompatibility, mechanical fragmentation, or bacterial toxins.

91. (d) Loss of intravascular volume into the soft tissues
Many viperine snake venoms increase vascular permeability and cause local or systemic edema and third spacing of fluid, which can rapidly lower effective circulating volume. This leads to early hypotension (shock). While bleeding or hemolysis may occur in severe envenomation, the sudden hypotension generally reflects intravascular fluid loss into tissues. Pooling of blood in the pulmonary circulation is not typical for immediate hypotension.

92. (a) 1, 2 and 3

Downloaded from www.pdf.tube

are now considered suboptimal. The standard duration is 28 days (4 weeks).

110. (b) Flaccid muscle weakness
Two main forms of rabies are recognized: furious" (classical) rabies, featuring hyperactivity, hydrophobia, and aerophobia; and dumb" or paralytic rabies, which primarily manifests as a progressive, flaccid paralysis often starting in the bitten limb. This variant may be more challenging to diagnose. Maculopapular rashes, spastic weakness, or classic hyperexcitability are not typical of paralytic rabies.

111. (c) Protein wasting
Marasmus is primarily energy deficiency leading to severe wasting of fat and muscle (including some protein), so options (a), (b), and (d) clearly occur (loss of subcutaneous fat, reduced anthropometric measures, and low BMI). However, in strict textbook contrast to kwashiorkor, marasmus" is often described as relatively less severe protein loss compared to total caloric deficiency. Many sources emphasize that protein wasting" (especially with hypoalbuminemia and edema) is more characteristic of kwashiorkor. Thus, (c) is the classical EXCEPT" in many exam frameworks.

112. (b) Acute meningococcaemia
Neisseria meningitidis (meningococcus") can cause a fulminant septicemia (meningococcemia) with characteristic petechial or purpuric rash, meningitis (neck stiffness), fever, and confusion. DIC or TTP could also present with purpura, but the combination of meningitis (neck stiffness), confusion, and a rapidly spreading purpuric rash is classic for meningococcal sepsis.

113. (b) Bradycardia
Hypovolemic shock typically induces sympathetic overdrive, leading to tachycardia, hypotension, cold/clammy skin (due to peripheral vasoconstriction), and reduced urine output (oliguria). Bradycardia is unusual in this setting; instead, a rapid heart rate is a compensatory mechanism for decreased intravascular volume. Hence, (b) bradycardia is the exception.

114. (b) Patients core body temperature rises above 40°C with muscle tremors, confusion, loss of consciousness and loss of sweating
Classic (non-exertional) heat stroke generally presents with core temperature often 40°C, central nervous system dysfunction (confusion, altered consciousness), and anhidrosis (loss of sweating). Muscular involvement (tremors or rigidity) can also be present. Although (d) mentions a temperature above 40°C and altered mental state, it incorrectly states increased sweating," whereas classic heat stroke typically features a failure of sweating mechanisms.

NODIA

115. (b) Vasopressor support
In venomous snakebite with shock, the initial priorities usually include ensuring a patent airway, giving aggressive fluid resuscitation (to correct hypovolemia), and prompt anti-venom administration if indicated. Vasopressors are occasionally needed if hypotension fails to respond to fluids, but they are not part of the immediate first-line priorities. Therefore, among the listed options, vasopressor support (b) is the one that is not automatically a priority at the very start.

116. (c) Total leucocyte count 16×10^9 per Litre
Classical SIRS criteria include:
1. Temperature 38°C or < 36°C
2. Heart rate 90/min
3. Respiratory rate 20/min or $PaCO_2$ < 32 mm Hg
4. WBC 12,000 cells/μL, < 4,000 cells/μL, or 10% bands

A cutoff of $>16 \times 10^9$/L" is not part of the standard definition; the usual threshold is $>12 \times 10^9$/L. Hence, (c) is the NOT appropriate" criterion among these choices.

117. (d) Severe Bronchial asthma
ARDS can be triggered by direct or indirect lung injuries—common causes include sepsis, pneumonia, aspiration of gastric contents, toxic inhalation, major trauma, burns, and acute pancreatitis (due to inflammatory mediators). Severe bronchial asthma, while life-threatening, usually does not cause the widespread alveolar-

STUDYING FROM PDFs?

THINK AGAIN.

If you are studying only from PDFs,
you are wasting valuable time.

Research shows that learning from

PRINTED BOOKS has up to

4× HIGHER RETENTION

than studying from screens.

PRINT BOOK = BETTER MEMORY

PDF = LOWER RETENTION

Those who study from **PRINTED BOOKS**
move **AHEAD.**

Others are left **BEHIND**
in competition.

In competitive exams,
being average is not enough.

STAY ONE STEP AHEAD.

protocols praziquantel can be adjunctive. Diethylcarbamazine (DEC), however, is the mainstay for filariasis (e.g., Wuchereria bancrofti) and has no role in the treatment of hydatid disease, making it the inappropriate choice.

101. (b) HIV
Specific immunoglobulins (IG) are available for certain exposures to help confer passive immunity—examples include hepatitis B immunoglobulin (HBIG), tetanus immunoglobulin (TIG), and rabies immunoglobulin (RIG). In contrast, no specific immunoglobulin product exists for post-exposure prophylaxis of HIV. Instead, HIV PEP relies on antiretroviral medications rather than immunoglobulins.

102. (d) Antifungal agents
Echinocandins (e.g., caspofungin, micafungin, anidulafungin) are antifungal drugs that inhibit the fungal cell wall by blocking the synthesis of β-(1,3)-D-glucan. They are especially useful against Candida species (including some azole-resistant strains) and have activity against Aspergillus (though usually in combination therapy).

103. (d) Ethionamide
Standard first-line anti-TB therapy (often called RIPE") consists of Rifampin, Isoniazid, Pyrazinamide, and Ethambutol. Ethionamide is a second-line agent used for drug-resistant TB or when first-line drugs are not tolerated. It is not part of the typical first-line regimen for drug-susceptible cases.

104. (b) Hepatitis
The most notable and significant side effect with standard TB regimens (especially isoniazid, rifampin, and pyrazinamide) is drug-induced hepatotoxicity. Monitoring of liver function tests is often necessary, particularly in patients with risk factors for liver disease. Colitis, cystitis, or enteritis are not as commonly encountered compared to hepatitis in TB pharmacotherapy.

105. (b) Liver function test
Because first-line TB drugs (especially isoniazid, pyrazinamide, and rifampin) can cause hepatotoxicity, guidelines recommend baseline liver function tests in all adult patients. This helps identify pre-existing liver disease and guides monitoring during treatment. While CBC and other tests may be relevant in certain settings, LFTs are routinely mandatory before initiating TB therapy.

106. (b) Enteric fever
Enteric fever (typhoid) due to Salmonella typhi commonly presents with a gradual onset of fever, gastrointestinal symptoms, coated tongue, relative bradycardia, and rose spots on the trunk. Soft splenomegaly and abdominal tenderness also fit this picture. Malaria, leptospirosis, and dengue have overlapping features (fever, headache), but the presence of rose spots, coated tongue, and relative bradycardia strongly suggests enteric fever.

107. (d) Skull TB
Common extrapulmonary sites in TB include lymph nodes (the most frequent form), genitourinary system (kidneys, reproductive organs), skeletal system (particularly the spine—Pott's spine), meninges, and pleura. Skull TB (i.e., cranial bone involvement) is quite rare compared to these more typical locations. Therefore, among the listed options, Skull TB" is the least commonly involved site.

108. (a) Impaired alertness
Botulism classically involves a descending, flaccid paralysis with prominent cranial nerve palsies (leading to ptosis, diplopia, dysarthria, dysphagia). However, sensorium is typically preserved, so patients remain alert. Impaired alertness" is not a hallmark; rather, progressive muscle weakness and autonomic dysfunction dominate.

109. (c) 3 antiretroviral drugs administered for 4 weeks
Current guidelines recommend a 3-drug antiretroviral regimen (often an integrase inhibitor plus two NRTIs) for 4 weeks following a high-risk exposure (e.g., needles tick from an HIV-positive source). Two-drug regimens

Click Here to Buy book on Amazon

risk of hypoglycemia compared to quinine. Although quinine was once the mainstay, it has been largely superseded by artesunate in modern guidelines. Chloroquine is useful only in chloroquine-sensitive regions (and for non-falciparum species in many cases), and IV quinidine is used far less frequently because of side effects and limited availability.

126. (d) Obese
BMI is calculated as weight (in kg) divided by height squared (in meters). For this patient, height is 1.5 m, so BMI = 80 kg / $(1.5\ m)^2$ = 80 / 2.25 ≈ 35.5. A BMI ≥ 30 is classified as obese. Standard BMI categories are: underweight < 18.5, normal weight 18.5–24.9, overweight 25–29.9, and obese ≥ 30.

127. (b) 1, 2 and 4
Angular stomatitis and cheilosis (inflammation at the corners of the mouth and chapped/fissured lips) are most characteristically seen with riboflavin (vitamin B2) deficiency, but can also occur in pyridoxine (vitamin B6) and niacin (vitamin B3) deficiencies. Thiamine (vitamin B1) deficiency manifests primarily as beriberi or Wernicke–Korsakoff syndrome, and does not typically present with cheilosis. Thus, the relevant vitamins for angular stomatitis and cheilosis among the options given are B2, B6, and B3 (listed in question as 1, 2, and 4).

128. (d) Infectious mononucleosis
Infectious mononucleosis (often caused by Epstein–Barr virus) typically presents with fever, lymphadenopathy (especially posterior cervical nodes), and hepatosplenomegaly. A notable feature is that patients with undiagnosed mononucleosis who receive amino penicillins (like ampicillin) often develop a characteristic, diffuse maculopapular rash. Measles usually has a prodrome of cough, coryza, conjunctivitis, and characteristic Koplik spots, while dengue can have a different rash and lacks the classic lymphadenopathy/splenomegaly pattern. Drug rash alone is less likely given the systemic findings.

129. (a) 1, 2, 3 and 4
Frailty is a multifaceted syndrome in older adults, marked by decreased physiologic reserves and increased vulnerability to stressors. Key features include changes in body composition (often sarcopenia), homeostatic dysregulation (poorer capacity to maintain equilibrium), energetic failure (fatigue, low physical endurance), and neurodegenerative processes (cognitive decline or neurological deficits). All four listed domains can be affected as part of frailty's complex pathophysiology, contributing to heightened risk of falls, hospitalizations, and mortality.

130. (d) Sea snake
Sea snake envenomation is notorious for causing severe muscle damage (myotoxicity), leading to generalized myalgias, rhabdomyolysis (elevated CK, dark urine), and neuromuscular paralysis (flaccid weakness). Cobra and krait bites primarily cause neurotoxic paralysis, while Russell's viper venom is predominantly vasculotoxic/hemotoxic. The combination of rhabdomyolysis with progressive paralysis fits best with sea snakes, whose venom is strongly myotoxic and can rapidly produce life-threatening complications if antivenom is not administered promptly.

131. (c) Cholinergic
Organophosphate compounds inhibit acetylcholinesterase, causing an excessive accumulation of acetylcholine at muscarinic and nicotinic receptors. The resulting cholinergic toxidrome is characterized by the classic DUMBELS" or SLUDGE" symptoms (Salivation, Lacrimation, Urination, Defecation, Gastrointestinal distress, Emesis, and so forth) plus muscle weakness, fasciculations, and respiratory failure. Adrenergic and serotonergic toxidromes have different clinical profiles, and hypnotic overdose typically causes CNS depression rather than the hypersecretory state seen with cholinergic overactivity.

NODIA

132. (a) Atropine
Atropine, a muscarinic antagonist, is the mainstay antidote for organophosphate poisoning. It counteracts the muscarinic overstimulation (excessive secretions, bronchospasm, bradycardia) by blocking

capillary damage and diffuse alveolar injury characteristic of ARDS.

118. (d) Amiodarone
In ventricular fibrillation or pulseless ventricular tachycardia, advanced life support protocols recommend immediate defibrillation, followed by epinephrine and, if the rhythm persists or recurs, an antiarrhythmic. The preferred antiarrhythmic is amiodarone. Lidocaine is an alternative if amiodarone is not available. Adenosine is used for stable SVT, and atropine is for severe bradycardia or certain AV blocks.

119. (a) Flumazenil
Benzodiazepines enhance GABAergic inhibition in the central nervous system. Flumazenil is a specific benzodiazepine receptor antagonist that can rapidly reverse sedation and respiratory depression caused by benzodiazepines. Naloxone is an opioid antagonist, atropine is an antimuscarinic (e.g., for organophosphate or cholinergic excess), and pralidoxime helps regenerate acetylcholinesterase inhibited by organophosphorus compounds.

120. (c) 10,000–20,000 organisms
Direct microscopy for Mycobacterium tuberculosis using Ziehl-Neelsen (ZN) staining requires a relatively high bacterial load—generally around 10,000 bacilli per milliliter of sputum—to yield a positive smear. This means that patients with lower numbers of organisms in their sputum can produce a false-negative result, despite active infection. Culture techniques and molecular tests are more sensitive and can detect fewer organisms, but sputum smear microscopy remains a standard, rapid, and cost-effective initial test in diagnosing pulmonary tuberculosis.

121. (a) 1 and 3
Weight loss is generally considered clinically significant if it exceeds either 5% of body weight over 6–12 months or around 10 pounds (4.5 kg) over a similar time frame. Statement 1 (4.5 kg over 6-12 months) and Statement 3 (more than 5% over 6-12 months) therefore align with these common clinical thresholds. Greater degrees of weight loss, such as 10 kg or >10% over 6–12 months, are certainly notable but are not the standard minimal cutoff used to define clinically significant weight loss.

122. (d) The organism may not be reisolated from the incubated diseased host
Koch's postulates outline that (1) the organism should be found in all cases of the disease, (2) must be isolated in pure culture, (3) cause the disease when introduced into a healthy host, and (4) can be reisolated from that host. Thus, the idea that the organism may not be reisolated" contradicts the fourth postulate, which actually requires that the same organism can indeed be recovered from the newly infected host.

NODIA

123. (b) Pneumocystis jirovecii
In an HIV-infected patient with subacute onset of respiratory symptoms and bilateral ground-glass opacities on imaging, Pneumocystis jirovecii pneumonia (PCP) is highly suggestive. Patients typically present with progressive dyspnea, mild to moderate fever, and hypoxia/cyanosis. Ground-glass changes on CT are classic for PCP, whereas Streptococcus pneumoniae usually causes more acute lobar consolidation. Mycobacterium tuberculosis often has a more chronic course, and Staphylococcus typically produces focal or cavitary lesions if severe.

124. (c) Neisseria meningitidis
Neisseria meningitidis commonly causes acute meningitis in young adults and can produce a characteristic petechial or purpuric rash over the trunk and extremities. Nuchal rigidity (meningeal irritation) plus rash are hallmark clues pointing to meningococcal infection. While S. pneumoniae is a leading cause of bacterial meningitis overall, it typically lacks the diffuse petechial rash. E. coli is more common in neonates, and H. influenzae meningitis incidence has dramatically decreased in the era of widespread Hib vaccination.

125. (a) Artesunate
Intravenous artesunate is recommended by the WHO as the first-line treatment for severe P. falciparum malaria in any trimester of pregnancy due to superior efficacy and lower

targeted PCR in the same sweeping manner as TB, HIV, or CMV.

156. (c) Salmonella species
Salmonella (especially Salmonella enteritidis) is notorious for contaminating poultry products, including raw or undercooked eggs. Ingestion can lead to gastroenteritis with diarrhea, abdominal cramps, and fever. E. coli can contaminate various foods, norovirus is often linked to contaminated water/produce and person-to-person spread, while Clostridium botulinum produces botulism typically associated with improperly canned foods, not raw eggs.

157. (d) Schistosomiasis
Trypanosomiasis (Trypanosoma species), Leishmaniasis (Leishmania species), and Amoebiasis (Entamoeba histolytica) are all infections caused by protozoa. Schistosomiasis, on the other hand, is caused by trematode (fluke) worms (genus Schistosoma). These flatworms inhabit blood vessels, leading to chronic inflammatory disease of the intestines, liver, or urinary tract depending on the species.

158. (a) Needle Biopsy of the Pleura
Tuberculous pleural effusions often have exudative, lymphocyte-predominant fluid, low glucose, and elevated (but sometimes borderline) ADA. Pleural fluid smear for AFB is usually low yield, and even AFB culture can be less sensitive. While GeneXpert (Xpert MTB/RIF) on pleural fluid may help, the single best test with the highest diagnostic yield remains a pleural biopsy (e.g., by closed needle biopsy) for histopathology and culture. Granulomatous inflammation is highly indicative of TB.

159. (c) 1, 2 and 4
Poliovirus is an enterovirus in the picornavirus family (Statement 1). Patients can experience early muscle pains and transient fasciculations before paralysis (Statement 2). The CSF often shows a mild pleocytosis, sometimes starting with polymorphonuclear cells that later shift to lymphocytes (Statement 4). Tonsillectomy does not reduce risk of bulbar poliomyelitis; in fact, some evidence suggests it may predispose to more severe involvement (making Statement 3 incorrect).

160. (c) Easy hair pluckability
Marasmus involves severe caloric (energy) deficiency leading to marked wasting, including reduced triceps skinfold thickness and decreased mid-arm circumference. Serum albumin is often relatively preserved compared to kwashiorkor. Easy hair pluckability is a feature more characteristic of kwashiorkor, which also shows edema and low albumin. In marasmus, the child typically appears very thin without significant edema or the classic hair/skin changes seen in kwashiorkor.

161. (b) Hypertonia
Organophosphorus poisoning causes an excess of acetylcholine at muscarinic and nicotinic receptors, leading to salivation, lacrimation, urination, diarrhea, GI upset, emesis (SLUDGE) as well as bronchorrhea and bronchospasm (muscarinic), and muscle fasciculations with weakness (nicotinic). CNS effects such as confusion may also occur. Ultimately, there is more commonly flaccid paralysis rather than hypertonia." Hence, hypertonia" is not a typical finding, making it the correct EXCEPT" choice.

162. (d) Cocaine
Miosis (constricted pupils) occurs commonly with opioids, organophosphorus compounds (via muscarinic stimulation), and clonidine (central α_2-agonist effect). Cocaine, on the other hand, blocks the reuptake of norepinephrine and can stimulate alpha-1 receptors in the iris dilator muscle, causing mydriasis (dilated pupils). Therefore, cocaine poisoning typically results in large pupils, making it the exception among the listed options.

163. (a) Amphetamines
Symptoms of sympathomimetic excess (tachycardia, hypertension, tremors, hallucinations, possible hyperthermia, and seizures) are classic for amphetamine-type stimulant intoxication. By contrast, benzodiazepine (diazepam) or opioid (oxycodone) overdose typically causes central

Downloaded from www.pdf.tube

acetylcholine receptors. Pralidoxime (2-PAM) is also used to help restore acetylcholinesterase function by cleaving the phosphorylated enzyme complex if administered early. Physostigmine is actually an acetylcholinesterase inhibitor (would worsen OP poisoning), naloxone reverses opioids, and sodium bicarbonate is used in specific toxicologic/metabolic scenarios but not as the first-line for OP poisoning.

133. (c) Abacavir
The Nucleoside Reverse Transcriptase Inhibitors (NRTIs) include drugs such as zidovudine, lamivudine, and abacavir. They require intracellular phosphorylation before inhibiting HIV reverse transcriptase. Nevirapine is a Non-Nucleoside RT Inhibitor (NNRTI) that binds directly to reverse transcriptase at a distinct site. Amprenavir and indinavir are protease inhibitors, targeting the HIV protease enzyme rather than the reverse transcriptase.

134. (c) Local wound care and 2 doses of rabies vaccine (day 0 and 3)
When a previously vaccinated individual (pre-exposure prophylaxis completed) is re-exposed to rabies within an appropriate interval (e.g., within 1 year), rabies immunoglobulin (RIG) is not indicated. Instead, the recommendation is thorough local wound care and administering two booster doses of vaccine (on days 0 and 3). In contrast, unvaccinated or incompletely vaccinated persons would require both passive immunization (RIG) and a full post-exposure vaccination schedule.

135. (a) 6 and 11
HPV types 6 and 11 are typically associated with benign lesions such as anogenital warts (condyloma acuminata) and are considered non-oncogenic. By contrast, HPV types 16 and 18 (and a few others like 31, 33, 45) are classified as high-risk strains, strongly linked to cervical, anal, and oropharyngeal cancers. Hence, among the listed options, only 6 and 11 are the acknowledged non-oncogenic pair.

136. (b) Defect in T cell function
Mycobacterium tuberculosis is primarily contained by cell-mediated immunity (CMI). T lymphocytes coordinate macrophages and cytotoxic responses crucial for controlling intracellular pathogens like TB bacilli. When there is a defect in T cell function—whether from immunosuppressive states (HIV) or genetic T-cell deficiencies—individuals become susceptible to progressive or disseminated tuberculosis. B cells and antibodies play a lesser role in clearing intracellular pathogens like Mycobacterium tuberculosis, which is why T-cell defects are the key risk factor.

137. (a) Streptococcus pneumoniae
Streptococcus pneumoniae (pneumococcus) remains the most frequent etiological agent of community-acquired pneumonia in adults. Although Mycoplasma pneumoniae, Staphylococcus aureus, and Legionella species can cause pneumonia in specific clinical contexts or outbreaks, pneumococcus is the leading cause overall. It often presents with an acute onset of fever, productive cough (classically rust-colored sputum), and lobar consolidation on chest imaging, especially in typical pneumonia.

138. (a) Erythema nodosum and lupus vulgaris
Tuberculosis can manifest on the skin with lupus vulgaris (a chronic, plaque-like lesion) and may also be associated with erythema nodosum (a hypersensitivity reaction causing tender nodules on the legs). Erythema marginatum is linked to rheumatic fever; pyoderma gangrenosum is often associated with inflammatory bowel disease; and phlyctenular conjunctivitis is typically a hypersensitivity reaction often related to TB, but erythema multiforme is more commonly related to infections like herpes or mycoplasma and certain drugs.

NODIA

139. (d) Azithromycin
Scrub typhus is caused by Orientia tsutsugamushi, transmitted by chiggers. The classic therapies include doxycycline (a first-line agent) or azithromycin. Among the listed options, azithromycin is the most appropriate and is especially useful in pregnant women or those intolerant to doxycycline. Ciprofloxacin, clindamycin, or penicillins are generally not reliable treatments for scrub typhus.

140. (b) Non motile
Clostridium tetani is a gram-positive, spore-forming, obligate anaerobe. It is classically described as a motile rod with peritrichous flagella in its vegetative form. Non motile" is therefore incorrect. These bacteria produce tetanospasmin, the neurotoxin responsible for the clinical manifestations of tetanus (rigidity and spasms).

141. (d) Dementia
Mycoplasma pneumoniae, besides causing respiratory infections, can lead to a variety of extrapulmonary complications such as rashes (including Stevens-Johnson syndrome), neurological syndromes (Guillain-Barré), and arthritis. Dementia, however, is not typically a recognized acute or subacute sequela of mycoplasma infection. Acute confusional states can occur but are not the same as a true dementia process.

142. (b) Parvovirus B19
Parvovirus B19 causes erythema infectiosum (Fifth Disease) in children, featuring a bright red erythema on the cheeks (slapped cheek" appearance) and a lacy rash on the body. Rubella typically presents with a fine, pink rash that starts on the face and spreads downward; measles causes a darker rash with Koplik spots; HHV-6 causes roseola infantum with high fever followed by a pink rash.

143. (a) Splenic aspirate
Visceral leishmaniasis (kala-azar") is diagnosed by identifying the parasite (Leishmania donovani) in tissue aspirates or biopsies. The sensitivity of splenic aspirate is highest (often exceeding 90%) for detecting Leishmania amastigotes. However, it requires expertise due to the risk of hemorrhage. Bone marrow aspirations are safer but slightly less sensitive. Ascitic fluid and lymph node aspirates are less commonly used or have lower yield.

144. (d) Treatment is with metronidazole
Cryptosporidiosis is transmitted by the fecal-oral route and typically causes a self-limiting diarrheal illness in immunocompetent individuals. In HIV/AIDS or immuno compromised patients, it can lead to severe, life-threatening diarrhea. Metronidazole is ineffective against Cryptorchidism. The recommended treatment in immunocompetent individuals is often nitazoxanide; in severely immuno compromised patients, restoring immune function (e.g. with antiretroviral therapy) is crucial for controlling the infection.

145. (b) Rabies vaccine
Live attenuated vaccines contain weakened forms of the pathogen that can still replicate to a limited degree, inducing robust immunity. MMR, oral polio (OPV), and BCG (for tuberculosis) are classic examples. In contrast, the widely used modern rabies vaccines are inactivated (killed) preparations. They do not contain live virus and therefore are classified as inactivated or killed vaccines, not live attenuated.

146. (b) Strongyloides stercoralis
The World Health Organization commonly lists Ascaris lumbricoides, Trichuris trichiura, and hookworms (Ancylostoma duodenale, Necator americanus) as the principal soil-transmitted helminths." Though Strongyloides stercoralis larvae can indeed penetrate skin from contaminated soil, it is classically treated as a separate entity and is not grouped with the major soil-transmitted nematodes" of global health importance. By WHO definition, strongyloidiasis" is usually listed under separate surveillance and control strategies.

147. (c) 1, 2 and 3
For a previously immunized person (pre-exposure prophylaxis completed) who sustains a high-risk (category 3) rabies bite, the recommended post-exposure management is thorough wound washing (wound care) and giving two booster doses of vaccine (on days 0 and 3). Rabies immune globulin (RIG) is not indicated in those already vaccinated. Antibiotics may be given if the wound is deep or at high risk of bacterial infection, although policies vary. Hence, items 1 (wound care), 2 (antibiotics), and 3 (booster doses) are appropriate.

148. (d) Ascaris

Click Here to Buy book on Amazon

Loffler's syndrome is a transient respiratory illness with pulmonary infiltrates and peripheral eosinophilia. The most classic parasitic cause is Ascaris lumbricoides (particularly during the larval migration through the lungs). Although other helminths (Strongyloides, hookworms) can also produce similar phenomena, Ascaris is the textbook example of Loffler's syndrome. Patients may present with cough, fleeting pulmonary opacities on chest imaging, and marked eosinophilia, but these findings often resolve spontaneously.

149. (b) 1 and 2 only
Klebsiella pneumoniae is classically associated with lobar pneumonia (often with currant jelly" sputum) and a range of intra-abdominal infections, including liver abscesses especially in certain geographic regions. True hepatitis," in the sense of a primary inflammatory process of the liver parenchyma (like viral hepatitis), is not a usual presentation of Klebsiella infection. Therefore, pneumonia and intra-abdominal infections are correct associations, whereas hepatitis is not routinely linked to this organism.

150. (d) 1, 2, 3 and 4
Dysenteric syndrome" refers to inflammatory diarrhea characterized by blood and/or mucus in stool and tenesmus. Common bacterial causes include Shigella, certain Salmonella strains (non-typhoidal), Campylobacter jejuni, and Clostridium difficile (which can produce a severe colitis that may present with bloody diarrhea). While Shigella is most classically associated with dysentery, all listed organisms can present with a dysentery-like picture in various settings.

151. (c) Amphotericin-B
Mucormycosis (caused by Mucorales fungi) typically requires liposomal Amphotericin B as the first-line pharmacological treatment. Surgical debridement of necrotic tissue is also critical. Azoles such as voriconazole, itraconazole, or fluconazole are not reliably active against Mucor species. Posaconazole or isavuconazole can be used as salvage or step-down therapy, but Amphotericin-B is generally the agent of choice for initial, aggressive management.

NODIA

152. (b) Triceps skinfold thickness < 3 mm
Kwashiorkor (protein malnutrition) is classically associated with edema, hypoalbuminemia (albumin often <2.8 g/dl), skin/hair changes, and easy pluckability" of hair. Triceps skinfold thickness <3 mm is more representative of severe caloric (energy) deficiency typically seen in marasmus, which features significant wasting but not necessarily edema. Kwashiorkor's hallmark is edema and low albumin despite sometimes only moderate reductions in total caloric intake.

153. (a) Erythromycin
Modern treatment options for typhoid fever (Salmonella typhi) commonly include fluoroquinolones (if sensitive), cephalosporins, azithromycin (a newer macrolide), amoxicillin, or co-trimoxazole (if the strain is sensitive). Erythromycin, however, is not reliably effective against S. typhi and is rarely recommended. Doxycycline may have some activity in milder cases or in areas with known sensitivity, although it is less commonly used than other agents.

154. (d) Tenofovir
Zanamivir and oseltamivir are neuraminidase inhibitors used in treating influenza A and B. Rimantadine (and amantadine) can be used against certain strains of influenza A (though resistance is common). Tenofovir is a nucleotide reverse transcriptase inhibitor used primarily against HIV and hepatitis B and has no clinical role in treating influenza.

155. (d) Staphylococcus aureus
Molecular tests (e.g., PCR) are routinely employed for CMV, HIV (via reverse transcription PCR for viral RNA or proviral DNA), and Mycobacterium tuberculosis (e.g., GeneXpert MTB/RIF). While Staphylococcus aureus can be detected by PCR (especially for MRSA screening), it is still more standardly and widely identified by culture methods. This question traditionally highlights that S. aureus is not typically diagnosed by routine DNA-

Ingestion of corrosives (strong acids or alkalis) or petroleum distillates presents a high risk of further esophageal or airway injury if emesis or lavage is attempted. Consequently, guidelines advise against gastric lavage for such substances. Ethanol overdose alone is not an absolute contraindication, though in practice it may not be beneficial. Therefore, (1), (2), and (3) are recognized contra indications to gastric aspiration/lavage.

93. (b) Paracetamol
N-acetylcysteine (NAC) replenishes intracellular glutathione, helping detoxify the toxic NAPQI metabolite produced from paracetamol (acetaminophen) overdose. It reduces liver injury if given promptly. It is not the specific antidote for salicylates, TCA overdose, or benzodiazepine toxicity (for which flumazenil is sometimes used). NAC is thus the classic paracetamol antidote.

94. (c) South-West India
Kyasanur Forest Disease (KFD) is a tick-borne viral hemorrhagic fever found in forested areas of the Western Ghats region in southwestern India. First identified in the Kyasanur Forest of Karnataka state, it remains localized there, not in Africa, the Balkans, or the Americas.

95. (c) Ringer lactate @ 7 mL/kg/hour
In dengue fever with warning signs (e.g., persistent vomiting, rising hematocrit) but stable blood pressure, moderate fluid replacement is started to compensate for plasma leakage. WHO guidelines often suggest an initial rate of around 5–7 mL/kg/hour for those with some signs of plasma loss yet no hypotension. Going too low may not correct hemoconcentration, and jumping straight to 10 mL/kg/hour is usually reserved for more severe or hypotensive states. Therefore, 7 mL/kg/hour is a typical, appropriate starting rate.

96. (b) Rifampicin resistance
GeneXpert MTB/RIF is a rapid molecular test that identifies Mycobacterium tuberculosis DNA and simultaneously detects resistance to rifampicin by probing the rpoB gene. While it helps rapidly diagnose TB and rifampicin resistance, it does not directly test for isoniazid or ethambutol resistance or full multidrug resistance (which generally requires additional testing).

97. (a) Hepatitis E
In many developing countries, including India, Hepatitis E is a major cause of waterborne outbreaks of acute hepatitis. Hepatitis E virus (HEV) often spreads through contaminated water supplies and can cause large epidemics. While Hepatitis A can also spread via the fecal–oral route, on a population scale, Hepatitis E has been documented more frequently in large adult outbreaks in the Indian subcontinent.

98. (c) To give Dolutegravir + Tenofovir + Emtricitabine
In occupational needlestick exposure with unknown HIV status, post-exposure prophylaxis (PEP) should be started promptly—preferably within 1–2 hours. Current guidelines typically recommend a three-drug regimen, such as an integrase inhibitor (Dolutegravir or Raltegravir) plus two NRTIs (Tenofovir + Emtricitabine) for 28 days. HBV immunoglobulin is not routinely given unless the source is known hepatitis B positive and the exposed person is non-immune. Simply washing and using a single agent is insufficient.

99. (a) Inhalation route
Cryptococcus neoformans is a fungus found in soil contaminated with bird droppings (especially pigeons). Infection begins when fungal spores or yeast cells are inhaled into the respiratory tract. After initial pulmonary infection (often subclinical), it can disseminate hematogenously, commonly affecting the central nervous system (cryptococcal meningitis). It is not typically transmitted by mosquitoes, skin contact, or ingestion.

100. (b) Diethylcarbamazine 2 mg/kg thrice in a day for 12 days
For Echinococcus granulosus (hydatid disease), recommended therapies include prolonged albendazole regimens, sometimes with PAIR (a minimally invasive procedure to remove the cyst contents safely), and in certain

Downloaded from www.pdf.tube

nervous system depression, respiratory depression, and reduced blood pressure. Ethanol intoxication also generally induces sedation rather than seizures and hallucinations (although withdrawal can cause these but under different circumstances). Thus, amphetamine use best fits the described clinical picture.

164. (d) Phosphine
Aluminium phosphide tablets (often used as a fumigant) react with moisture and stomach acid to release phosphine gas (PH_3), which is extremely toxic. Phosphine impairs cellular respiration by inhibiting cytochrome c oxidase, leading to profound cardiovascular collapse, metabolic acidosis, and multi-organ failure. Neither phosgene, chlorine, nor simple inorganic phosphates are primarily responsible for the acute lethal toxicity; it is phosphine that causes the classic severe presentation.

165. (c) Whole blood clotting time
Saw-scaled vipers (Echis carinatus) have predominantly hemotoxic venom, causing coagulopathy and bleeding tendencies. Hence, monitoring coagulation parameters—particularly the whole blood clotting time or 20-minute whole blood clotting test—is critical to detect venom-induced consumptive coagulopathy. Neurotoxic signs (e.g., respiratory paralysis) are more characteristic of cobra or krait bites, whereas muscle enzyme elevations are more relevant for severe myotoxic snake venoms. Therefore, clotting time measurement is key in saw-scaled viper envenomation.

166. (a) Flaccid paralysis
Cobra venom contains potent postsynaptic neurotoxins that block neuromuscular transmission, leading to progressive skeletal muscle weakness and ultimately flaccid paralysis. In contrast, viper bites often cause hemorrhage and coagulopathy (hemotoxic effects). Myolysis (severe muscle breakdown) is more characteristic of certain sea snakes or some other species. Cardiac toxicity is not a classic hallmark of cobra envenomation. Therefore, flaccid paralysis is the key clinical finding in cobra bites.

167. (b) Schistosoma hematobium
Schistosoma hematobium primarily affects the urinary system, often causing hematuria (blood in urine") due to granulomatous lesions in the bladder and ureters. This leads to chronic urinary tract complications such as bladder wall fibrosis and an increased risk of squamous cell carcinoma. Strongyloides, Toxocara, and Gnathostoma typically cause different clinical syndromes involving intestines, skin, or other tissues, not classical hematuria.

168. (d) African Trypanosomiasis
The Tsetse fly (genus Glossina) is well known for transmitting African trypanosomes (Trypanosoma brucei gambiense and T. b. rhodesiense), which cause African sleeping sickness. Leishmaniasis is transmitted by sandflies, Chagas disease by triatomine (kissing") bugs, and dengue by Aedes mosquitoes. African Trypanosomiasis can lead to hemolymphatic and CNS involvement, culminating in the classic sleeping sickness" if untreated.

169. (c) Invasive mechanical ventilation
An unconscious patient with pneumonia and severe hypoxemia (PaO_2 = 50 mm Hg) requires definitive airway protection and adequate ventilation. Non-invasive ventilation (NIV) typically necessitates a cooperative patient with intact airway reflexes. Because he is unconscious, the risk of aspiration is high, and he likely cannot protect his airway. Invasive mechanical ventilation ensures oxygenation, ventilation, and airway protection. Nasal cannula would be insufficient; no respiratory support" is clearly inappropriate.

170. (b) Less than 0.5 ml/kg/hour
A standard definition of oliguria in adults is a urine output below 0.5 ml/kg/hour. This threshold is commonly used in critical care to identify possible acute kidney injury or inadequate renal perfusion. Less than 200 ml in 24 hours would be more appropriately called anuria" or near-anuria. Less than 1 ml/kg/hour" is a higher cutoff and not the usual definition. Any decrease from baseline can be concerning, but does not itself define oliguria.

NODIA

right side of the heart and advanced into the pulmonary artery. Inflating the balloon at its tip allows measurement of the pulmonary capillary wedge pressure (PCWP), which reflects left atrial pressure in most situations. It does not measure peripheral arterial, portal venous, or intracranial pressures.

203. (b) Atropine toxicity
Atropine (an anticholinergic agent) commonly causes central nervous system manifestations such as confusion, agitation, and delirium (mad as a hatter"), alongside dry mouth, dilated pupils, and tachycardia. While digitalis toxicity can cause confusion, it more characteristically presents with visual changes and gastrointestinal upset; acetaminophen causes primarily hepatic injury; and kerosene poisoning leads to respiratory and GI effects rather than a classic delirium.

204. (b) Serum albumin
Multiple organ dysfunction scoring systems (like SOFA) typically assess acute changes in parameters such as bilirubin (for liver function), creatinine or urine output (for renal function), and PaO_2/FiO_2 ratio (for respiratory function). Serum albumin, while it may reflect chronic nutritional status or liver synthetic function, does not rapidly change and is not a standard component for acute multi-organ failure scoring or grading.

205. (c) 2 and 4 only
Patients with sickle cell disease are prone to functional asplenia, greatly increasing their risk for severe pneumococcal infections. Those with nephrotic syndrome lose immunoglobulins and complement factors in the urine, which also predisposes them to severe pneumococcal infections. Thalassemia minor generally does not cause severe immune compromise, and ITP alone does not automatically predispose to overwhelming sepsis unless postsplenectomy. Hence only (2) sickle cell disease and (4) nephrotic syndrome apply.

206. (b) Clostridium difficile
Pseudomembranous colitis is most commonly associated with Clostridium difficile infection, often arising after antibiotic therapy (e.g., clindamycin) disrupts normal bowel flora. C. difficile produces toxins causing colonic mucosal inflammation, leading to pseudomembranes visible on endoscopy. Shigella, E. coli, and Clostridium perfringens can cause diarrheal syndromes but are not the usual cause of pseudomembranous colitis.

207. (d) Lung abscess formation is very uncommon"
Klebsiella pneumonia typically affects the upper lobes and is known for its thick, bloody (currant jelly") sputum. It can be complicated by pneumatoceles, empyema, and necrotizing infections. In fact, Klebsiella is one of the more common bacterial causes of lung abscesses. Therefore, stating that Lung abscess formation is very uncommon" is incorrect. Abscesses do occur with Klebsiella, making option (d) the except" statement.

208. (a) Rifampicin 450 mg + Isoniazid 300 mg + Pyrazinamide 1500 mg"
For a 40 kg adult with pulmonary tuberculosis, standard weight-based dosing under many TB treatment guidelines is: Rifampicin 450 mg (since weight is under 50 kg), Isoniazid 300 mg (commonly used for most adults >30 kg), and Pyrazinamide 1500 mg (typical for the 40–54 kg range). This aligns with option (a). Although precise mg/kg calculations vary among protocols, 450 mg of Rifampicin, 300 mg of Isoniazid, and around 1500 mg of Pyrazinamide is conventionally recommended for that weight category.

209. (d) Intravenous aminophylline"
Immediate management of acute severe asthma emphasizes high-flow oxygen (to correct hypoxia), high-dose inhaled β_2 agonists (to relieve bronchospasm), and systemic corticosteroids (to reduce airway inflammation). Intravenous aminophylline is not a first-line immediate therapy and is usually reserved for cases unresponsive to initial measures. Its benefit over optimal inhaled bronchodilators and steroids is limited, and side effects can be

Click Here to Buy book on Amazon

impairment. Chronic lead exposure can also lead to anemia and gastrointestinal symptoms, but the motor neuropathy is especially classic.

179. (c) Neisseria meningitidis
Neisseria meningitidis (the meningococcus) can cause fulminant meningococcemia, characterized by meningitis, petechial or purpuric rash, shock (very low blood pressure), and disseminated intravascular coagulation. Teenagers and young adults are particularly susceptible. Hemophilus influenza type b once was a common cause of meningitis in children but less so now due to vaccination. Listeria is more common in neonates, older adults, or immuno compromised individuals, and Streptococcus pneumonia often affects extremes of age but typically does not present with a purpuric rash and rapid shock.

180. (b) Type 2 lepra reaction
In lepromatous leprosy, immune complex-mediated inflammation known as Type 2 lepra reaction (erythema nodosum leprosum, ENL) can occur, particularly after starting multi-drug therapy. It presents with tender erythematous nodules on the skin, systemic symptoms like fever, malaise, and often lymphadenopathy. Type 1 lepra reaction (reversal reaction) is more common in borderline leprosy, involving a cell-mediated immunological shift. Lucio's phenomenon is a rare severe necrotizing cutaneous reaction seen in diffuse lepromatous leprosy. Lupus pernio is associated with sarcoidosis, not leprosy.

181. (c) At least resistance to Isoniazid and Rifampicin
Multidrug-resistant tuberculosis (MDR-TB) is officially defined as TB caused by strains of Mycobacterium tuberculosis that are resistant to at least isoniazid (INH) and rifampicin—two of the most potent first-line drugs. Resistance to other first-line agents (e.g., streptomycin, ethambutol, pyrazinamide) can occur too, but the critical criterion for MDR status is resistance to both INH and rifampicin. Extensively drug-resistant TB (XDR-TB) adds resistance to fluoroquinolones and at least one second-line injectable, but that is beyond the standard MDR definition.

182. (d) Hyperuricaemia
Isoniazid can cause hepatotoxicity (hepatitis) and commonly leads to peripheral neuropathy by interfering with pyridoxine (vitamin B_6) metabolism. Skin rash is also recognized. Hyperuricemia, however, is more typically associated with pyrazinamide (another anti-TB agent), not isoniazid. Consequently, (d) is the incorrect side effect in the context of isoniazid therapy.

183. (a) Fluconazole
For esophageal candidiasis, an azole antifungal such as fluconazole is the standard first-line therapy because it achieves adequate mucosal penetration and reliably clears infection. Nystatin suspension is suitable mainly for oropharyngeal thrush, but often inadequate for deeper esophageal involvement. IV amphotericin may be reserved for severe or azole-resistant cases. Griseofulvin is used chiefly for dermatophyte infections (skin, hair, nails) and is not typically indicated for Candida esophagitis.

184. (d) Serum uric acid
Among first-line anti-TB drugs, pyrazinamide commonly elevates serum uric acid levels and can precipitate gouty attacks or arthralgias. Therefore, patients complaining of joint pains while on a regimen including pyrazinamide should be evaluated for hyperuricemia. SGOT/SGPT (liver enzymes) can also be relevant if hepatitis is suspected, but the most direct test to check for pyrazinamide-induced arthropathy is serum uric acid.

185. (b) Sodium bicarbonate
In significant salicylate toxicity, sodium bicarbonate is given IV to alkalinize the blood and urine. Alkaline urine traps salicylate ions in the tubular lumen, enhancing excretion and lowering serum salicylate levels. Acetazolamide is not the standard approach and can risk metabolic acidosis. N-acetyl-cysteine is the antidote for acetaminophen overdose, and allopurinol is for hyperuricemia/gout control. Therefore, sodium bicarbonate is the key therapy in aspirin overdose management.

Downloaded from www.pdf.tube

hepatitis rarely causes such pronounced muscle pain or conjunctival suffusion.

217. (c) Both 1 and 2"
In falciparum malaria, a heavy parasitic load correlates with severe disease, and mortality indeed increases sharply beyond a certain parasitemia threshold (often cited around 2–5%). Secondly, hypoglycemia can result from the parasite's high glucose consumption and from altered host metabolism. While quinine or other antimalarials can exacerbate hypoglycemia via hyperinsulinism effects, even untreated falciparum malaria may lead to low blood sugar due to the severe metabolic demands of widespread parasitic infection.

218. (a) Transient, migratory pulmonary infiltrations"
Loeffler's syndrome is a transient respiratory condition often linked to parasitic infections (e.g., Ascaris lumbricoides) or drugs. It features fleeting pulmonary infiltrates visible on chest imaging and an associated peripheral eosinophilia. These infiltrates tend to migrate within the lung fields and typically resolve spontaneously. There is no characteristic or persistent fibrosis in Loeffler's syndrome, nor does it present as a diffuse miliary" pattern. The hallmark is transient, migratory infiltrates rather than long-standing pulmonary scarring.

219. (c) Legionella pneumophila"
Legionella pneumonia commonly presents with fever, respiratory symptoms, gastrointestinal complaints (diarrhea), and neurological manifestations (confusion). Bilateral infiltrates on chest X-ray are also typical. Streptococcus pneumoniae and Staphylococcus aureus pneumonia generally produce focal or lobar consolidation rather than this distinctive multisystem picture. Pseudomonas predominantly affects immuno compromised or hospital settings. In a relatively young adult with confusion, GI symptoms, and diffuse pneumonia, Legionella is the prime suspect.

220. (c) p24 antigen detection"
During the early window period, HIV antibodies have not yet formed in measurable quantities, making antibody-based tests (ELISA or Western blot) less reliable. The p24 antigen—part of the viral capsid—appears sooner in the bloodstream and can be detected before seroconversion. CD4 count is nonspecific and does not necessarily drop immediately. Therefore, p24 antigen detection is more useful for identifying recent HIV infection in a blood donor during the window phase.

221. (b) Typhoid"
Cholera (Vibrio cholerae) causes disease via cholera toxin; botulism (Clostridium botulinum) by botulinum neurotoxin; tetanus (Clostridium tetani) by tetanospasmin. These are classic exotoxin-mediated illnesses. Typhoid fever, caused by Salmonella Typhi, is primarily invasive and not driven by a major exotoxin causing the hallmark symptoms. While Salmonella may produce certain toxins, the central pathogenesis of typhoid is invasion, multiplication, and an immune response rather than a singular exotoxin mechanism.

222. (d) A-3, B-1, C-2, D-4
Calcium sodium edetate (A) chelates lead (3). Sodium nitrite (B) is used (along with sodium thiosulfate) in cyanide poisoning (1) by inducing methemoglobin formation that binds cyanide. Methylene blue (C) reverses methemoglobinemia induced by compounds such as nitrobenzene (2). Atropine (D) blocks muscarinic effects in organophosphate poisoning (4).

NODIA

223. (b) Adenovirus"
Onyx-015 is a genetically modified adenovirus designed to selectively replicate within and destroy cancer cells (particularly those with disrupted p53 tumor suppressor pathways). By targeting malignant cells while sparing healthy ones, Onyx-015 exploits the defective molecular mechanisms common in tumors. Parvovirus, pox viruses, and herpes simplex viruses have also been investigated for oncolytic therapy, but Onyx-015 specifically refers to an adenovirus-based vector.

224. (a) 1 and 2 only

prevent this complication. Both statements are correct.

194. (c) p24 antigen detection
During the window period, antibodies to HIV (detected by ELISA or Western blot) have not yet formed in sufficient quantity. The p24 antigen, a viral capsid protein, becomes detectable earlier, making p24 antigen assays more likely to identify acute HIV infection before seroconversion. CD4 counts can still be normal early on, so p24 antigen detection is most sensitive in this phase.

195. (b) 2, 3 and 4
Tuberculoid leprosy is the paucibacillary form with strong cell-mediated immunity. It presents with few, well-demarcated hypopigmented lesions (2), significant early nerve involvement (3), and a tendency toward spontaneous resolution (4). Type 2 lepra reaction (erythema nodosum leprosum) is more associated with borderline or lepromatous forms, not tuberculoid.

196. (a) 1, 2 and 4
Leptospirosis is found worldwide (thus ubiquitous enzootic") and typically has an incubation period of 2 to 20 days. Renal involvement often leads to microscopic haematuria. However, a classic teaching is that the intensity of jaundice in leptospirosis (Weil's disease) does not strictly predict prognosis; deeply jaundiced patients can still have a relatively favorable outcome. Hence statements 1, 2, and 4 are correct, while 3 is not.

197. (b) Bradycardia
SIRS criteria include abnormal temperature (fever >38°C or hypothermia <36°C), heart rate >90 bpm (i.e., tachycardia), tachypnea (>20 breaths/min or low $PaCO_2$), and altered WBC count (either leukocytosis >12000 or leukopenia <4000). Bradycardia is not part of SIRS and is generally not expected in systemic inflammatory states.

198. (c) Hyperglycaemia
Severe malaria, especially from Plasmodium falciparum, can cause acute respiratory distress syndrome (ARDS), lactic acidosis, cerebral malaria (leading to coma), hypoglycemia, and various organ failures. Hyperglycemia is not typically seen as a direct complication; in fact, hypoglycemia (often exacerbated by quinine) is much more common.

199. (a) Hyperpyrexia
Botulism results from a neurotoxin that blocks acetylcholine release, causing a descending paralysis. Characteristic findings include cranial nerve palsies (e.g., blurred vision, dysphagia), sudden or progressive limb weakness, and respiratory failure. Fever or hyperpyrexia" is generally absent in botulism unless a secondary infection occurs. Hence, option (a) is not a typical feature.

200. (b) 2 only
In acute bacterial meningitis for older adults (often >50 years), it is recommended to include ampicillin to cover Listeria monocytogenes. While gentamicin can sometimes be added for synergy in neonatal or severely immuno compromised patients with Listeria, it is not routinely required solely on the basis of being older than 55. Therefore, statement 1 is not a standard guideline, but statement 2 is universally accepted (ampicillin indeed covers Listeria).

201. (c) Tetanus immunoglobulin
For an individual with a dirty/contaminated wound who is inadequately immunized (or whose tetanus vaccination status is unknown), the recommended prophylaxis is both active immunization (tetanus toxoid) and passive immunization with Tetanus Immunoglobulin (TIG). However, if only one agent must be chosen for immediate antibody coverage, TIG confers rapid protection. Tetanus toxoid alone will not offer prompt immunity, and penicillin or triple vaccine do not address acute tetanus prophylaxis in a high-risk, unionized scenario.

202. (c) Pulmonary wedge pressure
A Swan-Ganz catheter (pulmonary artery catheter) is inserted via a large vein into the

Click Here to Buy book on Amazon

186. (c) CD 8
Cytotoxic T lymphocytes (often called killer T cells") specifically express the CD8 surface marker. Their primary role is to target and destroy cells harboring intracellular pathogens (e.g., viruses) and tumor cells. CD4 is typically found on helper T cells, CD5 can be present on T cells and some B cells, CD10 on pre-B cells and germinal center B cells, and CD2 is a pan–T cell marker but not the defining cytotoxic subset.

187. (d) Thiamine
Wernicke's encephalopathy, caused by thiamine (vitamin B_1) deficiency, classically presents with the triad of ophthalmoplegia (eye movement abnormalities), ataxia (unsteady gait), and confusion or altered mental status. While often linked with alcoholism, it can also occur in malnourished or immuno compromised states such as AIDS. Niacin deficiency causes pellagra (dermatitis, diarrhea, dementia), pyridoxine deficiency leads to peripheral neuropathy and other issues, and biotin deficiency typically manifests with dermatitis and hair loss.

188. (b) Bacillus cereus
Bacillus cereus food poisoning is classically linked to reheated or improperly stored rice dishes. Two syndromes exist: a rapid-onset emetic form (often from fried rice) and a longer-onset diarrheal form. Clostridium perfringens typically involves meats or poultry with a somewhat longer incubation period. Staphylococcus aureus toxin ingestion often has a very short incubation (1–6 hours) but is more commonly associated with dairy or creamy foods. Campylobacter jejuni usually presents with fever and dysentery-type diarrhea over a longer course.

189. (d) Detection of IgM antibodies for dengue
During the first few days (roughly days 1–5) of dengue illness, the NS1 antigen is a useful marker. However, by day 5–7, the NS1 antigen levels often decline. IgM antibodies to dengue virus typically become detectable around day 4–5 of illness and peak in the second week. Given this child's seven-day history of fever, detecting dengue-specific IgM antibodies is the most appropriate and sensitive test for confirming recent infection.

190. (a) Relapse
Plasmodium vivax and P. ovale form hypnozoites in the liver, which can reactivate weeks to months later, causing relapses." Recrudescence" typically refers to the persistence of parasites in the blood that flare up again, more commonly in P. falciparum. A truly new infection" would be less likely if the child was effectively cleared, and the same species recurs within weeks. Therefore, renewed symptoms with P. vivax positivity after an asymptomatic period is most often a relapse from liver hypnozoites.

191. (a) Pit viper
Pit viper (e.g., Russell's viper) envenomation often causes a hemotoxic syndrome with coagulopathy, bleeding tendencies (petechiae, ecchymosis, oozing from puncture sites), and renal complications (acute kidney injury). Cobras and mambas primarily cause neurotoxic features (ptosis, ophthalmoplegia, respiratory paralysis). Pythons are nonvenomous constrictors that typically do not produce a systemic envenomation syndrome. Thus, the described bleeding diathesis and oliguria align most closely with pit viper envenomation.

192. (b) Measles virus
Subacute sclerosing panencephalitis (SSPE) is a progressive and fatal neurological disorder that typically appears years after an initial measles infection—due to a persistent, mutated measles virus. It involves gradual behavioral changes, mental deterioration, and neurological deficits. The other viruses listed (HIV, Japanese B encephalitis virus, JC virus) are not implicated in SSPE.

193. (c) Both 1 and 2
The danger triangle" of the face (including the nose and upper lip) drains into the cavernous sinus via valveless veins. Infections or boils in this region risk retrograde spread to the cavernous sinus, causing thrombosis, a life-threatening condition. Therefore, prompt antibiotic therapy for nasal boils/suppurative lesions is crucial to

NODIA

significant. Therefore, IV aminophylline is not typically recommended right away.

210. (c) HBe Ag"
HBeAg (hepatitis B e" antigen) reflects active replication of the virus and high infectivity. Its presence typically indicates that the virus is replicating vigorously in the liver. HBsAg (surface antigen) shows that infection is present (acute or chronic), but it does not specifically confirm high replication. Anti-HBs is the protective antibody usually seen after successful vaccination or resolution of infection. Anti-HBc signals exposure to the virus (IgM anti-HBc in acute infection; IgG anti-HBc in past or chronic infection).

211. (a) Cerebral oedema"
Prolonged or severe hypoglycemia can result in neuronal injury that may not rapidly reverse even when blood glucose normalizes. One feared outcome is cerebral edema, especially in cases of overly rapid correction or extremely low glucose levels maintained for too long. This swelling in the brain parenchyma can lead to persistent coma, permanent neurological damage, and high mortality. While other neurological sequelae (e.g., infarcts, seizures) can occur, cerebral edema stands out for its grave prognosis.

212. (c) Descending motor paralysis with preservation of tendon reflexes and absent sensation"
Polio typically causes an initial mild viral prodrome which can progress to meningitic symptoms and often asymmetric flaccid paralysis with diminished or absent deep tendon reflexes. Paralysis usually follows an ascending" or patchy pattern rather than purely descending (a hallmark of some other conditions, e.g., botulism). Additionally, polio mainly affects motor neurons, resulting in reduced reflexes and muscle weakness, not purely sensory loss. Hence, (c) describing descending paralysis with preserved reflexes and lost sensation is least characteristic of poliovirus.

213. (b) 2, 3 and 4"
Tuberculoid leprosy typically presents with few hypopigmented skin patches having sharp borders (2). It features strong cell-mediated immunity, causing significant nerve involvement early (3) and often leading to well-defined anesthetic lesions. Because the host immune response is robust, tuberculoid lesions may partially or completely resolve spontaneously (4). Conversely, Type 2 lepra reaction (erythema nodosum leprosum) usually occurs in lepromatous or borderline lepromatous disease. Hence, 2, 3, and 4 are correct for tuberculoid leprosy, while 1 is not.

214. (a) It is usually during initiation of treatment"
Erythema nodosum leprosum (ENL) is a type 2 lepra reaction chiefly seen in borderline lepromatous or lepromatous leprosy. It features painful, tender subcutaneous nodules, systemic signs (fever, malaise), lymphadenopathy, and possible eye involvement. While ENL can be precipitated or worsened by starting multidrug therapy (due to increased immune response), it also occurs spontaneously in untreated disease. Hence describing it as usually" during initiation of treatment is not entirely accurate—ENL is not confined solely to the start of therapy.

215. (d) Staphylococcus aureus"
Tropical pyomyositis is a deep muscle infection leading to abscess formation, often seen in humid climates. Staphylococcus aureus is by far the most frequently implicated organism, accounting for the majority of cases. Streptococci and other bacteria may occasionally be involved, but S. aureus remains the classic cause given its virulence, propensity for hematogenous spread, and ability to survive within muscle tissue.

216. (a) Leptospirosis"
Leptospirosis (particularly its severe Weil's syndrome form) presents with high fever, headache, jaundice, renal impairment, and striking muscle tenderness (especially in the calves). Conjunctival suffusion (redness without exudate) is a hallmark finding. Leukocytosis and mild uremia reflect multiorgan involvement. Typhoid fever tends to feature step-ladder fevers and abdominal symptoms, typhus usually shows rash and characteristic epidemiology, and viral

Downloaded from www.pdf.tube

171. (c) Bilateral plantar response – Mute or Absent
The universally accepted clinical criteria for brain death include coma (unresponsiveness), absence of brainstem reflexes (pupillary, corneal, oculocephalic, gag, etc.), and apnea test showing no drive to breathe. While pupils fixed and unresponsive, absent corneal reflex, and absent gag reflex are key components, the plantar reflex (a spinal reflex) can sometimes remain present due to preserved spinal cord activity. Therefore, bilateral plantar response – mute or absent" is not a consistent or required criterion for diagnosing brain death.

172. (d) Vitamin C
Corkscrew" or swan-neck" hairs are a classic cutaneous sign of scurvy, caused by vitamin C (ascorbic acid) deficiency. Collagen synthesis is impaired, leading to brittle hair with a coiled appearance, perifollicular hemorrhages, gum bleeding, and poor wound healing. Deficiencies of vitamins A, E, or K each have distinct clinical manifestations (night blindness or xerophthalmia, neurologic problems or hemolysis, and coagulopathy, respectively), rather than corkscrew hair.

173. (c) Typhoid
Typhoid fever (due to Salmonella Typhi) relies primarily on bacterial invasion and multiplication in the intestines and reticuloendothelial system, not on a secreted exotoxin. In contrast, botulism (Clostridium botulinum), diphtheria (Corynebacterium diphtheriae), and tetanus (Clostridium tetani) are classic examples of diseases driven by potent exotoxins. Botulinum toxin causes neuromuscular blockade, diphtheria toxin causes local and systemic toxicity, and tetanospasmin disrupts inhibitory neurotransmission, whereas Salmonella Typhi lacks a major virulence exotoxin.

174. (c) Clonidine
Tricyclic antidepressants, cocaine, and amphetamines all increase sympathetic or anticholinergic tone, leading to mydriasis (dilated pupils). Clonidine is an α_2-adrenergic agonist that diminishes sympathetic outflow and more commonly results in miosis (pupil constriction). Clinically, severe clonidine overdose is associated with CNS depression and pinpoint pupils, making it the exception among the listed agents in terms of pupil dilation.

175. (c) Hypothermia
An Osborn wave (also known as a J wave) is a positive deflection at the J point on ECG, most famously associated with hypothermia (core temperature typically below 30–32 °C). It may also appear in other conditions like hypercalcemia or Brugada syndrome variants, but hypothermia is the classic cause. These waves become more prominent as body temperature falls, reflecting altered ventricular repolarization in the cold.

NODIA

176. (a) It can be safely administered in pregnancy
Current recommendations avoid giving HPV vaccine during pregnancy as safety data are limited, hence it is not deemed safe" to administer in pregnancy. The usual recommended age to start HPV vaccination is 9–14 years (often quoted as around 11–12). Catch-up vaccination is advised up to 26 years (or in some guidelines up to 45 years) but is most beneficial before sexual debut. HPV vaccines are indeed given intramuscularly, usually in the deltoid.

177. (d) Second molar
Permanent teeth eruption time lines often parallel stages of pubertal development. The second permanent molar, typically erupting around 11–13 years of age (sometimes called the 12-year molar"), has been noted to coincide relatively closely with the average age of menarche in many populations. First molars erupt much earlier (around 6–7 years), and premolars also tend to appear before the typical menarche window.

178. (c) Lead
Lead poisoning characteristically produces a motor neuropathy, often presenting as wrist drop or foot drop due to peripheral nerve involvement (particularly radial nerve). While other heavy metals can affect multiple organ systems (e.g., mercury primarily targets the central nervous system, cadmium the kidneys and lungs, thallium the hair follicles and nervous system), lead's hallmark is its predilection for motor nerve

Salicylate (aspirin) overdose commonly leads to a characteristic pattern: an early, marked respiratory alkalosis due to direct stimulation of the respiratory center (causing hyperventilation), which often evolves into a mixed acid–base disturbance featuring both respiratory alkalosis and a high-anion-gap metabolic acidosis. However, this metabolic acidosis is typically an increased anion gap type rather than a hyperchloremic (normal anion gap) metabolic acidosis. Therefore, statements 1 and 2 are correct, while statement 3 does not reflect the usual acid–base derangements in salicylate toxicity.

225. (d) Starvation ketosis – Glucagon
Uraemic acidosis is treated with dialysis when severe, methanol poisoning may be managed with ethanol (or fomepizole), and hyperosmolar states are corrected by careful intravenous fluids. Starvation ketosis arises from prolonged fasting, where insulin decreases and glucagon is endogenously elevated, driving ketone formation. However, administering exogenous glucagon to manage starvation ketosis is not standard. Typically, providing carbohydrates (glucose) and addressing nutritional deficiency is the actual treatment. Therefore, Starvation ketosis – Glucagon" is not a correct management pairing.

226. (a) 200 Joules
Current Advanced Cardiac Life Support (ACLS) guidelines for biphasic defibrillators recommend an initial shock of around 200 Joules for ventricular fibrillation or pulseless ventricular tachycardia (although some biphasic devices specify a slightly lower or higher starting dose). Subsequent defibrillations may be given at equal or higher energies, but the typical starting point is 200 J with biphasic waveform machines. Older monophasic defibrillators often required 360 J for all shocks.

227. (c) Group A streptococcus
Acute rheumatic fever follows an infection by specific strains of Group A beta-hemolytic streptococci, commonly affecting the throat (e.g., Streptococcus pyogenes). After a latent period, the immune-mediated process leads to the characteristic clinical features of rheumatic fever (such as carditis, migratory polyarthritis, etc.). Streptococcus pneumoniae and the other listed organisms do not cause the classic syndrome of acute rheumatic fever. Hence, Group A streptococcus remains the well-established etiological agent.

228. (a) A- 1, B-4, C-2, D-3
Rocky Mountain spotted fever (A) is transmitted by tick bites (1). Q fever (B), caused by Coxiella burnetii, often results from inhalation of dried infected materials (4). Rickettsial pox (C) is transmitted by mites (2). Epidemic typhus (D) is spread by the human body louse, with infected louse feces entering through broken skin (3). Therefore, the correct matching sequence is A→1, B→4, C→2, D→3.

229. (d) Milk
Dietary iron is found abundantly in organ meats (like liver), animal proteins (fish, poultry, red meat), and plant sources including certain seeds, pulses, and even jaggery (unrefined sugar cane). Milk, though nutritionally beneficial in other aspects (calcium, protein), is generally poor in iron content. Children relying heavily on cow's milk are at risk of iron deficiency due to low iron density in milk. Hence, (d) Milk is the option that is not considered a good source of dietary iron.

230. (b) A-2 B-1 C-4 D-3
Benzodiazepine overdose (A) is reversed by flumazenil (2), copper sulphate toxicity (B) is managed by D-penicillamine (1), opioid overdose (C) is reversed by naloxone (4), and paracetamol poisoning (D) is treated with N-acetylcysteine (3). Matching these correctly yields the sequence A→2, B→1, C→4, D→3.

231. (b) Temporal lobe
Herpes Simplex Virus (HSV) encephalitis characteristically affects the temporal lobes (and sometimes the inferior frontal lobes), leading to fever, seizures, altered mental status, and often focal neurological signs involving memory and language. MRI and EEG changes typically emphasize the temporal regions. This localization is so classic that temporal lobe

Click Here to Buy book on Amazon

involvement on imaging immediately raises suspicion of HSV encephalitis.

232. (a) Staphylococcus epidermidis
In early prosthetic valve endocarditis (within 60 days of surgery), Staphylococcus epidermidis (a coagulase-negative Staphylococcus) is most commonly implicated due to its propensity to form biofilms on prosthetic materials. Staphylococcus aureus is also a frequent cause, but S. epidermidis edges it out specifically in the scenario of early prosthetic valve infections. Streptococcus viridans classically causes native-valve subacute endocarditis, and HAECK organisms are less common.

233. (c) Thickened peripheral nerve
Tuberculoid leprosy (the paucibacillary pole) is marked by a strong cell-mediated immune response, few lesions containing very few organisms, a positive lepromin test, and often significant nerve enlargement with patchy anesthesia. Leonine facies (a), negative lepromin tests (b), and abundant bacilli (d) are more characteristic of lepromatous leprosy. Hence, tuberculoid disease is most likely associated with thickened peripheral nerves (c).

234. (c) Its routine prophylaxis in newborn children is recommended to prevent early haemorrhagic disease
Vitamin K is a fat-soluble vitamin, not water-soluble, and body stores do not last for many years. Routine newborn prophylaxis (an intramuscular vitamin K injection) is crucial to prevent hemorrhagic disease of the newborn. While vitamin K can help correct coagulopathy in certain settings (e.g., warfarin overdose or deficiency), it is not the primary emergency therapy for acute severe hemoptysis. Thus, the only correct statement is that newborn prophylaxis is recommended.

235. (b) Anti HBc
For acute Hepatitis B, the most specific serologic marker is IgM anti-HBc (the core" antibody). HBsAg merely indicates active infection (whether acute or chronic). HBeAg is more a measure of infectivity/viral replication. HBcAg is not readily detectable in serum. Therefore, detection of (IgM) anti-HBc is the key test to confirm recent/acute infection.

236. (d) Meningococcal meningitis
Japanese encephalitis (a) is transmitted by mosquitoes, dengue fever (b) likewise by Aedes mosquitoes, and kala-azar (leishmaniasis) (c) by the sand fly. Meningococcal meningitis, caused by Neisseria meningitidis, spreads through respiratory droplets or close contact, not by an arthropod vector.

237. (a) Myopathy
Vitamin B12 deficiency is known to cause neurological complications such as subacute combined degeneration of the spinal cord (myelopathy), peripheral neuropathy, and sometimes optic atrophy. True myopathy" (primary muscle fiber pathology) is not a hallmark of B12 deficiency. Hence, (a) is the correct except."

238. (a) Vitamin B6 — Beriberi
Beriberi is caused by a deficiency of vitamin B1 (thiamine), not B6 (pyridoxine). Pellagra (B3/ niacin deficiency) is correctly matched, subacute combined degeneration of the spinal cord corresponds to B12 deficiency, and a burning feet" (or burning sensation) can be associated with pantothenic acid (vitamin B5) deficiency. Thus, the incorrect pairing is Vitamin B6 — Beriberi."

239. (b) Sensory loss
Poliomyelitis is an acute viral infection that predominantly affects the anterior horn cells of the spinal cord, leading to lower motor neuron involvement. Clinical features may include flaccid paralysis (hypotonia), depressed or absent reflexes, and muscle pain. Because the lesion spares sensory pathways, sensory deficits are not typical in acute polio. Therefore, sensory loss" is the incorrect option among the listed choices.

240. (c) selenium
Endemic cardiomyopathy in children, often exemplified by Keshan disease, has been strongly associated with selenium deficiency. Selenium

NODIA

is crucial for the function of certain antioxidant enzymes (such as glutathione peroxidase). When selenium levels are inadequate, oxidative damage can occur more readily in cardiac muscle cells, predisposing to myocardial injury and subsequent cardiomyopathy. Supplementation of selenium in areas where the soil (and thus the diet) is deficient can reduce the incidence of this condition, underscoring its importance in maintaining cardiac health.

241. (d) Isoniazid and Rifampicin
Multi-drug resistant tuberculosis (MDR-TB) is formally defined as Mycobacterium tuberculosis that is resistant to at least isoniazid (INH) and rifampicin—two core first-line anti-TB drugs. Resistance to these agents significantly compromises treatment efficacy because alternative regimens are longer, more toxic, and less effective. Additional resistance to other first-line or second-line agents may further complicate treatment, often requiring specialized combination regimens under strict monitoring. Early detection of resistance patterns is essential for controlling the spread of MDR-TB and improving patient outcomes.

242. (b) Ethambutol
Rifampicin, isoniazid, and pyrazinamide are well-known to have hepatotoxic potential, leading to elevations in liver enzymes and, in more severe cases, frank hepatitis. Ethambutol's primary concern is ocular toxicity (especially optic neuritis), not hepatic injury, so it is rarely implicated in liver dysfunction. When a patient on TB therapy develops elevated transaminases or overt hepatitis, clinicians typically suspect INH, RIF, or PZA, and the regimen is adjusted accordingly. Ethambutol can generally be continued if hepatotoxicity is the only issue.

243. (b) Hepatitis B virus
Among the hepatitis viruses, only hepatitis B virus (HBV) has a partially double-stranded DNA genome. In contrast, hepatitis A, C, D, and E viruses are RNA viruses. HBV's replication involves an unusual cycle that uses reverse transcriptase, but the key point is that its genetic material in virions is DNA. This feature has implications for diagnostic tests and for the development of antiviral therapies, which often target HBV's reverse transcription and DNA polymerase steps to reduce viral replication.

244. (c) Niclosamide
Niclosamide is traditionally regarded as the drug of choice for Taenia saginata (beef tapeworm) and Taenia solium (pork tapeworm) infections. It works by inhibiting the parasite's mitochondrial oxidative phosphorylation. Praziquantel is also effective, but many sources highlight Niclosamide's longstanding role specifically for tapeworm infections. Metronidazole is more relevant for protozoa (e.g., Giardia, Entamoeba), while albendazole targets a range of nematodes and can be used for cysticercosis but is not the primary choice for simple taeniasis.

245. (b) B_{12}
Subacute combined degeneration involves demyelination in the dorsal columns and lateral corticospinal tracts of the spinal cord, leading to sensory ataxia, proprioceptive deficits, and spastic weakness. Vitamin B_{12} (cobalamin) deficiency is the classic cause, often arising from pernicious anemia or malabsorption. Prolonged deficiency impairs myelin formation, triggering these neurologic manifestations. While other B-vitamin deficiencies can cause neurological problems (e.g., B_1 deficiency causes beriberi and Wernicke-Korsakoff), B_{12} deficiency is uniquely tied to subacute combined degeneration.

NODIA

246. (c) A-4 B-3 C-1 D-2
1. Epidemic typhus is caused by Rickettsia prowazekii → (4).
2. Murine typhus (endemic typhus) is caused by Rickettsia typhi → (3).
3. Q fever is caused by Coxiella burnetii → (1).
4. Rocky Mountain spotted fever is caused by Rickettsia rickettsii → (2).

Hence the matching sequence is A=4, B=3, C=1, D=2, which corresponds to option (c).

247. (a) Fastidious, fast-growing, gram-positive bacteria whose growth requires an atmosphere of L-cysteine
The HACEK group (Haemophilus, Aggregatibacter, Cardiobacterium, Eikenella, Kingella) are gram-negative organisms that

Pentamidine is used in certain protozoan infections (e.g., Pneumocystis pneumonia) but is not the first-line treatment for cryptococcal infections.

278. (a) Hepatitis B is the most common viral cause of cirrhosis worldwide
Globally, hepatitis B remains a leading cause of chronic liver disease and cirrhosis, especially in regions such as Asia and Africa. Chronic hepatitis C also leads to cirrhosis, but at a higher rate than 5% (so option (b) is false). Hepatitis B is transmitted via blood/body fluids, not by the fecal-oral route (c is false). While hepatitis C can lead to chronic infection, hepatitis B is more often implicated in fulminant disease globally, making (d) incorrect.

279. (d) Organophosphorus compound
Bradycardia, hypotension, respiratory depression, excessive salivation, fasciculations, and flaccid paralysis strongly point to an organophosphorus compound poisoning, which causes cholinergic overactivity (SLUDGE" signs) and neuromuscular dysfunction. Opioid overdose causes pinpoint pupils, severe respiratory depression, but not usually fasciculations. Barbiturates cause CNS depression without the marked cholinergic excess signs (salivation, fasciculations). Copper sulphate poisoning can produce gastrointestinal corrosion and hemolysis, but not the described cholinergic syndrome.

280. (b) Cotrimoxazole
In an HIV-positive patient with bilateral interstitial infiltrates, Pneumocystis pneumonia (PCP) is highly likely. The first-line empirical treatment for PCP is high-dose trimethoprim-sulfamethoxazole (cotrimoxazole). Penicillin is not effective for PCP. Amphotericin B is used for severe fungal infections (e.g., cryptococcal meningitis), and acyclovir treats viral infections (like herpes). Cotrimoxazole remains the initial drug of choice unless contraindicated.

281. (c) 1, 2 and 4
Typhus fevers are caused by Rickettsia species. Epidemic typhus (R. prowazekii) is transmitted by the human body louse, endemic (murine) typhus (R. typhi) by fleas, and scrub typhus (O. tsutsugamushi) by mites. Sand flies are generally vectors for other illnesses (e.g., leishmaniasis), not typically the classic typhus group. Hence, mites (1), human body louse (2), and fleas (4) are responsible for transmitting the typhus fevers.

282. (b) Generalised tender lymphadenopathy
Secondary syphilis typically presents with widespread mucocutaneous lesions (including the palms and soles), systemic symptoms (like mild fever, malaise, weight loss), and characteristic mucosal changes (painless erosions or snail-track" ulcers). Lymphadenopathy is also common, but it is generally painless or only mildly tender. Markedly tender lymphadenopathy is not typical of secondary syphilis, so generalised tender lymphadenopathy" is the exception (i.e., not typically seen).

283. (a) Cerebral malaria
Plasmodium falciparum infections can lead to severe complications. Among them, cerebral malaria is generally regarded as the most dire, presenting with seizures, coma, and high mortality if untreated. Although acute pulmonary edema, algid malaria (shock state), and metabolic acidosis are also serious, cerebral malaria (infection in the brain's small vessels) is often identified as the gravest complication because of the high risk of permanent neurological damage or death.

284. (a) Ethambutol
Isoniazid, rifampicin, and pyrazinamide are well-known for their potential to cause hepatic injury, making liver function monitoring important during treatment. Ethambutol does not typically cause hepatotoxicity; its most recognized adverse effect is optic neuritis (manifesting as altered color vision or reduced visual acuity). Therefore, among the first-line antitubercular agents, ethambutol stands out as not being significantly hepatotoxic.

285. (b) Cefazolin
Cephalosporins are categorized by generations" based on antimicrobial spectrum. Cefazolin is a

Downloaded from www.pdf.tube

Many catheter-associated urinary tract infections actually remain asymptomatic, so (a) is incorrect. Routine prophylaxis (b) is generally not recommended because it can foster antibiotic resistance. The most common pathogens in catheter-associated UTIs are typically enteric bacteria such as E. coli, not staphylococci/streptococci from the skin, making (d) incorrect. In symptomatic cases, finding significant bacteriuria correlates with high colony counts ($\geq 10^5$ CFU/ml), which aligns with (c) and makes it the correct statement.

255. (d) Paracetamol poisoning
Pinpoint (miosis) pupils commonly occur with opioid overdose (e.g., morphine) and organophosphorus poisoning (due to excessive cholinergic stimulation). A pontine hemorrhage can also cause bilaterally constricted pupils by affecting sympathetic pathways. By contrast, paracetamol (acetaminophen) overdose usually does not produce significant miosis; it primarily causes hepatotoxicity at high doses. Thus, among the listed options, paracetamol toxicity does not classically present with pinpoint pupils.

256. (b) 1 and 4
Long-term steroid (glucocorticoid) use predisposes to reactivation of latent tuberculosis and opportunistic infections such as nocardiosis. Mycobacterium tuberculosis (1) may flare due to impaired cell-mediated immunity, and Nocardia species (4) are classic opportunists in immunosuppressed individuals. While Pseudomonas aeruginosa and Staphylococcus aureus can be problematic in certain settings (hospitalized, severe structural lung disease, etc.), they are not as closely linked to chronic steroid use as TB and Nocardia are.

257. (a) dilated vessel in a tubercular lung cavity
A Rasmussen's aneurysm is an aneurysmal dilation of a branch of the pulmonary artery that lies within or in close relation to a tubercular cavity. Chronic inflammation and weakening of the vessel wall can result in this localized dilation. It can be a source of life-threatening hemoptysis. The other listed options refer to different vascular dilations not linked specifically to TB lung cavities.

258. (b) 1 and 2 only
Major Jones criteria for acute rheumatic fever include several clinical features, two of which are specific skin findings: Erythema marginatum (1) and Subcutaneous nodules (2). Oster's (Osler's) nodes" belong to infective endocarditis rather than rheumatic fever, and butterfly rash" is associated with systemic lupus erythematosus. Hence, among the listed choices, only 1 and 2 are recognized dermatologic signs in acute rheumatic fever.

259. (a) A-1 B-4 C-3 D-2
1. Dermatomyositis → Heliotrope (violaceous) rash on eyelids → (1)
2. Epidemic dropsy (from adulterated mustard oil) → toxic substance includes dihydrosanguinarine → (4)
3. Arsenic poisoning → classically produces skin hyperpigmentation and keratoses → (3)
4. Diabetes insipidus → inability to concentrate urine leads to free-water loss and hypernatremia → (2)

Hence A=1, B=4, C=3, D=2.

NODIA

260. (b) Amikacin
Amikacin is an aminoglycoside antibiotic that has very poor oral absorption and is virtually always administered parenterally (intravenous or intramuscular). By contrast, azithromycin, cefdinir, and linezolid are all well-established oral formulations for outpatient use. Thus, amikacin is the only one in the list not conventionally given by the oral route.

261. (a) Ventricular fibrillation
In cardiac arrest, the heart frequently degenerates into a chaotic, uncoordinated electrical activity known as ventricular fibrillation (VF). This arrhythmia results in no effective cardiac output, culminating in circulatory collapse. Although other rhythms (like asystole or pulseless VT) can also be seen, VF is one of the most common immediate lethal rhythms in sudden cardiac arrest, hence the most likely" among the listed options.

262. (a) IgM Anti HBc
IgM antibody to Hepatitis B core antigen (IgM anti-HBc) appears early in the course of acute HBV infection and remains the most specific marker of recent infection. Its presence indicates that the patient has either active acute hepatitis or is in the early convalescent phase. By contrast, IgG anti-HBs usually appears later (indicating recovery or immunity), HBsAg can remain positive in chronic cases, and IgM anti-HBe is less commonly used than IgM anti-HBc to confirm recent infection.

263. (b) Measles
Subacute sclerosing panencephalitis (SSPE) is a progressive, fatal degenerative disease of the central nervous system that arises years after infection with a mutant measles virus (typically acquired in early childhood). It is not linked with mumps, rubella, or polio. The measles virus undergoes persistent infection within the CNS, ultimately causing this delayed but severe encephalopathy.

264. (d) A-3 B-4 C-2 D-1
1. Acute pyogenic meningitis → Typically high protein, low glucose, and predominance of polymorphs → (3).
2. Tubercular meningitis → Elevated protein, lymphocytic pleocytosis, low glucose → (4).
3. Guillain-Barré syndrome → Albuminocytologic dissociation (elevated protein with few or no cells) → (2).
4. Neurocysticercosis → Often normal or near-normal CSF → (1).

Hence A=3, B=4, C=2, D=1.

265. (b) Niacin
This classic triad describes pellagra, caused by niacin (vitamin B_3) deficiency. Patients develop dermatitis (especially in sun-exposed areas), diarrhea, and neuropsychiatric manifestations sometimes labeled dementia." Advanced cases can be fatal if untreated. Thiamine deficiency leads to beriberi/Wernicke-Korsakoff, riboflavin to angular stomatitis/cheilosis, and pyridoxine deficiency can cause sideroblastic anemia and neuropathies, but none produce the classic 3 Ds."

266. (b) 7 hydrocholesterol
The skin contains 7-dehydrocholesterol (often referred to in simplified form as 7 hydrocholesterol") as the precursor for vitamin D synthesis. When exposed to UVB radiation from sunlight, this precursor is converted to cholecalciferol (vitamin D_3). The 25-hydroxy (calcidiol) and 1,25-dihydroxy (calcitriol) forms occur subsequently in the liver and kidney. Calciferol" is a more general term and not specifically the naturally occurring precursor in skin.

267. (b) Measles
Warthin-Finkeldey giant cells are large multinucleated cells found in lymphoid tissues (e.g., tonsils) in the early stages of measles infection. They are distinct from the typical intranuclear or intracytoplasmic inclusions seen in other viral infections. Their presence helps pathologists confirm measles in a histopathologic specimen.

268. (b) increase cell membrane permeability to specific ions
Ionophore antibiotics form channels or otherwise facilitate the transport of certain ions across biological membranes, disrupting normal ionic gradients. They do not directly inhibit cell wall synthesis (as β-lactams do), nor do they block transcription/translation specifically (like rifampin or macrolides). Instead, they raise permeability to target ions, collapsing the ion gradients crucial for cell function.

269. (a) DNA amplification
Polymerase Chain Reaction (PCR) is a rapid, specific method for amplifying a chosen segment of DNA exponentially. Each cycle doubles the amount of the target sequence, enabling even trace amounts of DNA to become abundant enough for analysis. While PCR can precede sequencing or library screening, its primary purpose is to amplify DNA, not to sequence it directly or to synthesize polymerases.

270. (b) It is transmitted by the bite of male sand flies

Click Here to Buy book on Amazon

Kala-azar (visceral leishmaniasis) is caused by Leishmania donovani, and it is transmitted by female Phlebotomus sand flies, not male sand flies. The promastigote form enters the human host when an infected female sand fly bites. Post Kala-azar dermal leishmaniasis is a known complication that can appear months after treatment. Therefore, all the listed statements are correct except for the claim that male sand flies transmit the infection, making (b) the erroneous statement.

271. (c) Subcutaneous epinephrine
This presentation is highly suggestive of an anaphylactic reaction: sudden hypotension, bronchospasm (wheezing), and tachycardia following antibiotic administration. The first-line immediate treatment for anaphylaxis is epinephrine (adrenaline). Although intravenous fluids, corticosteroids, and bronchodilators can be supportive, epinephrine via intramuscular (or subcutaneous) route is the definitive and most urgent therapy to counteract anaphylaxis. It helps restore vascular tone and reduce airway constriction.

272. (a) 1-3 hours
A standard unit of packed red blood cells is typically transfused over 1.5 to 3 hours in most adults. The recommendation is usually to complete transfusion within 4 hours to reduce the risk of bacterial overgrowth if the blood is at room temperature. However, 1-3 hours" is generally considered the optimal timeframe for most patients, provided they have no risk factors (e.g., fluid overload) requiring a slower rate. This minimizes infection risk and ensures safe correction of anemia.

273. (c) Painful, deep, sloughing infection of the gums from commensal organisms of the mouth
Vincent's angina (also called trench mouth or acute necrotizing ulcerative gingivitis) is a severe gum infection marked by painful ulceration, foul odor, and sloughing of gingival tissue. It results from an overgrowth of commensal oral bacteria, typically involving fusobacteria and spirochetes. It is not related to ischemic cardiac pain or post-MI angina, and it is unrelated to achalasia cardia. The term angina" here refers to the severe throat/gum pain, not cardiac pain.

274. (b) A-2 B-4 C-3 D-1
Opium's respiratory depression and overdose are reversed by naloxone (A→2). Cyanide poisoning is managed with sodium thiosulphate (and other agents) (B→4). Mercury toxicity can be treated with chelating agents such as dimercapto-1-propane sulphate (DMPS) or DMSA (C→3). Diazepam overdose is reversed by flumazenil (D→1). Hence, A=2, B=4, C=3, D=1 fits option (b).User (2025-01-30T17:54:44.442Z):

275. (a) Intravenous quinine
Severe falciparum malaria (as indicated by high parasitemia, jaundice, altered consciousness) typically requires urgent parenteral treatment. Although intravenous artesunate is now widely recommended where available, older regimens use intravenous quinine to rapidly lower parasite loads. Oral therapy (or through Ryle's tube) is inappropriate in severely ill, semiconscious patients. Intravenous chloroquine is not effective against many chloroquine-resistant strains of P. falciparum. Oral primaquine is reserved for radical cure or gametocyte clearance, not for initial severe infection control.

276. (b) Argemone poisoning
Epidemic dropsy is caused by contamination of edible oils (often mustard oil) with Argemone mexicana seed oil. The toxic principle causes widespread edema, gastrointestinal disturbances, and sometimes cardiac and ocular involvement. Dhatura, organophosphorus compounds, and aluminum phosphide have different toxic profiles and do not produce the typical syndrome of epidemic dropsy, characterized by pitting edema and systemic manifestations linked to Argemone poisoning.

NODIA

277. (c) Amphotericin B
Cryptococcal meningitis (especially in immunocompromised individuals) is most effectively treated initially with amphotericin B (often combined with flucytosine). After induction therapy, patients typically switch to a consolidation phase with high-dose fluconazole. Ketoconazole is not preferred for meningitis.

resistance, and sometimes overt diabetes. These metabolic disturbances are less commonly caused by integrase inhibitors or entry inhibitors, and while certain NRTIs can also contribute to lipodystrophy, the classical and most pronounced metabolic issues are most closely linked to protease inhibitors (e.g. older agents like indinavir, ritonavir).

310. (b) Pyridoxine
Isoniazid (INH) therapy can induce a deficiency of vitamin B_6 (pyridoxine) by binding to pyridoxal-5-phosphate and by interfering with its metabolism. This can lead to peripheral neuropathy, anemia, and other neurologic complications. Therefore, prophylactic pyridoxine supplementation is recommended for patients receiving isoniazid, especially those with risk factors (e.g., malnourished or pregnant individuals).

311. (d) Lycopene
Tomatoes are well-known for their high lycopene content, a red carotenoid pigment credited with antioxidant properties potentially beneficial for cardiovascular health and certain cancer risk reduction. Allicin is abundant in garlic, curcumin in turmeric, and lignans in seeds like flaxseed. Lycopene is specifically associated with the red color of tomatoes, watermelon, pink guava, and related foods.

312. (d) It is the classification of the injured on the basis of severity of injuries with the concept of treating those first who are likely to survive with medical intervention.
In a mass casualty situation, triage" means sorting patients by the severity of their condition and the likelihood of benefit from immediate treatment. The key principle is to prioritize patients who have serious but treatable injuries—maximizing overall survival. This often means those who can be saved with prompt intervention get treated first, rather than first come, first served" or automatically giving top priority to those most gravely injured (who may not survive even with treatment).

313. (d) A-3 B-2 C-4 D-1
Triage color coding in mass emergencies often follows:
1. Red = Immediate (high priority)
2. Yellow = Delayed (medium priority)
3. Green = Minor (ambulatory or walking wounded")
4. Black = Dead or moribund (expectant category)

314. (d) Haemophilus influenzae
Staphylococcus aureus can produce necrotizing pneumonia and cavitations, Pseudomonas aeruginosa commonly forms cavities in immunocompromised individuals, and Actinomyces can create cavitary lesions in pulmonary infections. By contrast, Haemophilus influenzae typically manifests as bronchopneumonia or exacerbations of chronic bronchitis but very rarely forms actual cavities. Its disease course does not favor the necrosis required for significant cavity formation, making it the organism that almost never" causes lung cavitation among these listed choices.

315. (c) Beef
E. coli O157:H7 is often linked with eating undercooked or contaminated ground beef, as the organism resides in cattle intestines. During slaughter or processing, beef can be tainted; if it is not cooked to a sufficiently high temperature, ingestion of live bacteria can result. Poultry contamination is more classically associated with Salmonella, eggs with Salmonella or other bacteria, and soft cheeses (especially unpasteurized) with organisms like Listeria. Beef remains the principal food associated with E. coli O157 outbreaks.

316. (b) Corynebacterium jeikeium
The HACEK group comprises Haemophilus, Aggregatibacter (formerly Actinobacillus) actinomycetemcomitans, Cardiobacterium hominis, Eikenella corrodens, and Kingella kingae—organisms commonly associated with endocarditis. Corynebacterium jeikeium is a Gram-positive bacterium frequently isolated from skin flora and linked with infections in immunocompromised patients, but it is not part of the HACEK complex, which are Gram-

Downloaded from www.pdf.tube

classic first-generation cephalosporin. Cefaclor and cefoxitin belong to the second generation, whereas cefepime is a fourth-generation agent. First-generation cephalosporins (e.g., cefazolin, cephalexin) have good activity against many Gram-positive bacteria and some Gram-negative organisms, making them suitable for perioperative prophylaxis and certain soft tissue infections.

286. (a) Fluconazole
Febrile neutropenia in immunocompromised patients often mandates broad-spectrum antibacterial and antifungal coverage. Fluconazole is commonly used prophylactically (and sometimes as an initial empirical antifungal) against Candida species in high-risk neutropenic patients. While itraconazole or voriconazole may be chosen if there is concern for molds (like Aspergillus), fluconazole remains a standard option in many protocols for febrile neutropenia prophylaxis or early therapy. Flucytosine is narrower and typically combined with amphotericin B for certain yeast infections.

287. (a) Cytokines
Cellular immunity (T-cell mediated) heavily depends on cytokines—proteins secreted by cells (like interleukins, interferons) that modulate immune responses. Immunoglobulins (or gamma globulins) predominantly function in the humoral arm of immunity (B-cell derived antibodies). Prostaglandins are inflammatory mediators but are not the direct modulators of T-cell-driven cellular immunity. Cytokines, however, regulate T-cell growth, differentiation, and activity, making them central to cell-mediated immune functions.

288. (c) 30 mg/kg per day
For chloroquine-resistant Plasmodium falciparum malaria, oral quinine sulfate is typically given in a dose of about 30 mg/kg/day (divided into three doses) for 7 days, often combined with doxycycline or clindamycin. This regimen ensures adequate blood levels to combat resistant parasites. Lower doses (10 or 20 mg/kg/day) may be insufficient for severe resistance, while 50 mg/kg/day would generally exceed recommended safe dosages and could increase toxicity risks.

289. (b) Cardiovascular syphilis often leads to dissecting aneurysm of the aorta
Treponema pallidum is the causative agent of syphilis. In primary syphilis, a chancre often appears with nearby painless lymphadenopathy. The fluorescent treponemal antibody absorption (FTA-ABS) test is indeed highly specific. However, cardiovascular syphilis typically causes a saccular or fusiform aneurysm of the ascending aorta rather than a classic dissecting" aneurysm. Hence, (b) is incorrect as stated (often leads to dissecting aneurysm").

290. (b) The disease is usually localized to the anterior segment of the upper lobe
Reactivation (post-primary) TB usually affects the posterior segment of the upper lobe (or sometimes the superior segment of the lower lobe), not the anterior segment. Reactivation TB often cavitates and can spread via bronchogenic dissemination (satellite lesions"). In severe, untreated cases, there is a substantial mortality risk within months. Thus, statement (b) is incorrect (the except") because it specifies the anterior segment, whereas post-primary TB classically targets the apex/posterior upper-lobe segments.

291. (b) Measles
Subacute sclerosing panencephalitis (SSPE) is a rare but fatal progressive neurologic disorder that develops years after an initial measles virus infection (usually acquired in early childhood). It results from persistent mutant measles virus in the central nervous system. Mumps, roseola (exanthema subitum), and erythema infectiosum (parvovirus B19) are not linked to SSPE.

292. (d) Pertussis vaccine
Live attenuated vaccines contain weakened forms of the pathogen that can induce immunity without causing the full disease in healthy individuals. Sabin oral polio vaccine, measles (Schwarz strain), and BCG (for tuberculosis) are all classic live attenuated vaccines. The traditional pertussis vaccine (whole cell or

NODIA

are fastidious and often require a carbon dioxide–enriched environment, not specifically L-cysteine. They are a known cause of culture-negative endocarditis affecting both native and prosthetic valves, often originating from oral flora. When appropriately identified and treated, cure rates tend to be good. Therefore, describing them as gram-positive" or needing L-cysteine" is incorrect, making option (a) the statement that is not correct.

248. (c) Streptococcus pneumoniae
Patients without a functional spleen (asplenic or post-splenectomy) are particularly prone to infections with encapsulated bacteria such as Streptococcus pneumoniae, Haemophilus influenzae type b, and Neisseria meningitidis. The spleen is vital in opsonizing and clearing these organisms. Protozoan infections like Entamoeba or Giardia, or fungi like Aspergillus, are not the most notable threats in splenectomised patients compared with the heightened risk of fulminant bacterial sepsis from S. pneumoniae.

249. (b) A-1 B-4 C-2 D-3
1. Nucleoside RT inhibitor (NRTI) example: stavudine (d4T) → A = 1
2. Nucleotide RT inhibitor example: tenofovir → B = 4
3. Non-nucleoside RT inhibitor example: nevirapine → C = 2
4. Protease inhibitor example: lopinavir → D = 3

Hence the matching is A=1, B=4, C=2, D=3, corresponding to option (b).

250. (c) Tinea capitis
Tinea capitis (scalp ringworm) is a fungal infection commonly caused by dermatophytes such as Trichophyton and Microsporum. The black dot" appearance occurs when brittle, infected hairs break off at the scalp surface, leaving small black stubs. The condition often presents with pruritus (itching), scaling, and patchy hair loss. Alopecia areata involves non-scaly patches, pediculosis capitis (head lice) produces visible lice/nits, and traumatic alopecia typically has an obvious mechanical cause rather than the classic black dot" pattern.

251. (a) 1, 2 and 3
In the usual terminology, lepra reaction" often refers to Type 2 reaction (erythema nodosum leprosum, ENL), which is not seen in purely tuberculoid disease, so statement 1 can be considered correct in that context. ENL (statement 2) frequently appears after starting multidrug therapy and involves immune complex–mediated inflammation. Elevated TNF-α (statement 3) is indeed found in ENL, contributing to its inflammatory severity. Lucio phenomenon, however, is linked specifically to diffuse lepromatous leprosy (not tuberculoid), so statement 4 is incorrect.

252. (a) 1, 2 and 3
Organophosphorus compounds irreversibly inhibit cholinesterase (statement 1), causing acute cholinergic symptoms including muscle weakness (statement 3). Chronic or repeated exposure can result in organophosphate-induced delayed neuropathy (statement 2). The intermediate syndrome" mainly features proximal muscle weakness and cranial nerve deficits rather than marked sensory impairment, so statement 4 is not typically correct. Hence, options 1, 2, and 3 accurately describe recognized effects of organophosphorus poisoning, making (a) the correct choice.

253. (c) Naloxone
Naloxone is an opioid receptor antagonist that rapidly reverses the life-threatening respiratory depression seen in opioid overdose. It binds with high affinity to μ-opioid receptors without activating them, thereby displacing opioids like morphine or heroin. Fomepizole is used for toxic alcohol ingestion (methanol/ethylene glycol), Flumazenil for benzodiazepine overdose, and Physostigmine for anticholinergic toxicity. Naloxone's prompt action and short half-life make it critical in emergency management of suspected opioid intoxication or overdose.

254. (c) Microscopic bacteria correlates with significant colony count (>10^5/ml) in symptomatic cases

Click Here to Buy book on Amazon

and echocardiography frequently reveals vegetations. Hence, tends to be acute and fulminant" is not true.

302. (d) Massive splenomegaly
Leptospirosis (especially the severe form known as Weil's disease) can present with jaundice, renal failure, and hemorrhagic manifestations. Mild-to-moderate hepatomegaly may occur, but massive splenomegaly is uncharacteristic. In contrast, diseases like malaria or kala-azar are more likely to show gross splenic enlargement. The hallmark of severe leptospirosis is jaundice (often very pronounced), potential pulmonary hemorrhages, and multi-organ involvement rather than marked splenic enlargement.

303. (d) Tissue phase
P. falciparum-infected RBCs show marked cytoadherence to vascular endothelium, form rosettes with uninfected RBCs, and sequester in deep capillaries. These phenomena underlie severe falciparum malaria complications (e.g., cerebral malaria). While P. vivax and P. ovale have a relapse" or hypnozoite" stage in the liver, P. falciparum does not maintain a long-term tissue phase in the same manner. Therefore, tissue phase" is not typically used to describe P. falciparum biology, making it the best except."

304. (d) Trichuris trichiura
Trichuris trichiura (whipworm) resides predominantly in the colon (particularly the cecum). By contrast, Ascaris lumbricoides, Necator americanus (a hookworm), and Strongyloides stercoralis all primarily inhabit the small intestine. The question specifically asks which does not infest the small bowel, and Trichuris trichiura is well known for its colonic habitat.

305. (c) Loa loa
Lymphatic filariasis in humans is classically caused by Wuchereria bancrofti, Brugia malayi, or Brugia timori. These worms reside in the lymphatic system, causing lymphedema, elephantiasis, and related pathology. Loa loa (the African eye worm) inhabits subcutaneous tissues and causes Calabar swellings, not typically lymphatic filariasis. Hence, Loa loa is the correct not" cause.

306. (d)Gastrointestinal bleeding
Giardia lamblia infection often produces diarrhea (which can be acute or chronic), malabsorption, and steatorrhea (fatty stools). Patients may experience weight loss and overall ill health. Frank gastrointestinal bleeding, however, is uncharacteristic of giardiasis. Although there may be mucosal irritation, significant bleeding is not a typical feature of this protozoal infection, making GI bleeding the except."

307. (c) Human cysticercosis is transmitted by the ingestion of ova.
Human cysticercosis arises when a person ingests Taenia solium eggs (ova), typically from fecal contamination. The oncospheres hatch and migrate to tissues (brain, muscle, etc.) to form cysticerci. The parasite is Taenia solium, not Echinococcus granulosus (which causes hydatid cysts). While humans can be a definitive host for the adult tapeworm in the intestine, in cysticercosis specifically humans act as the intermediate host after ingesting eggs. Levamisole is not the primary therapy (albendazole ± steroids is standard).

308. (d) 1, 2 and 3
Plasmapheresis (plasma exchange) removes pathogenic autoantibodies or immune complexes from circulation. In Goodpasture's syndrome, it helps remove anti–glomerular basement membrane antibodies. In Myasthenia gravis, it temporarily reduces anti–acetylcholine receptor or anti–MuSK antibodies, improving muscle strength. In Guillain-Barré syndrome, particularly severe cases, plasmapheresis (or IVIG) can speed recovery by removing damaging immunoglobulins. Thus, it may be useful in all three conditions.

309. (c) Protease inhibitors
Protease inhibitors (PIs) in HIV therapy have long been associated with the so-called lipodystrophy syndrome," characterized by abnormal fat distribution, dyslipidemia, insulin

Downloaded from www.pdf.tube

acellular) is not live; it is inactivated or subunit-based, thus (d) is the correct except."

293. (b) Leukocytosis
Kala-azar (visceral leishmaniasis) commonly presents with chronic fever, marked splenomegaly, anemia, and hypoproteinemia/ hypoalbuminemia. Leukopenia (low white cell count) or pancytopenia is typical rather than leukocytosis. Hence, leukocytosis" is not a characteristic feature of Kala-azar.

294. (c) 2 only
Recent studies show that curcumin integrates into cell membranes, stabilizing them and making them less susceptible to microbial invasion. There is no well-established evidence that it causes rapid WBC proliferation or rapid antibody synthesis. Its main recognized mechanism is altering membrane properties and exerting anti-inflammatory effects rather than robustly boosting WBC or antibody production. Hence only statement (2) stands correct.

295. (b) 2 and 3 only
Commiphora wightii (guggul) grows chiefly in arid or semi-arid regions (e.g., Rajasthan, Gujarat), not exclusively in the tropical rain forests of northeast India, so statement (1) is incorrect. Its gum resin is used in Ayurvedic medicine and is reported to help lower LDL (bad) cholesterol levels. Hence, (2) and (3) are correct, while (1) is false.

296. (a) Pulses
Pulses (legumes) form symbiotic relationships with Rhizobium bacteria in their root nodules, enabling atmospheric nitrogen fixation. Cereals and tubers generally do not have such nodular nitrogen fixation, and sugarcane/beetroot also lack the classic nodule-based nitrogen fixation found in legumes.

297. (a) Vitamin A
Golden rice" is engineered to produce beta-carotene, a precursor to Vitamin A, in the grain's endosperm. Its development aims to address Vitamin A deficiency, a leading preventable cause of blindness and immune dysfunction in children in many developing countries.

298. (c) Chloramphenicol
Lithium, theophylline, and salicylates (aspirin) are all significantly dialyzable in cases of severe overdose due to their pharmacokinetic profiles (relatively small volume of distribution, water solubility). Chloramphenicol, on the other hand, tends to have a higher volume of distribution and is not removed efficiently by hemodialysis. Therefore, while dialysis is a recognized treatment in toxicity with lithium, theophylline, or salicylates, it offers minimal benefit in chloramphenicol poisoning.

299. (a) 10 years
Traditionally, the 17D yellow fever vaccine was considered to provide protection for at least 10 years, and boosters were recommended at that interval. Recent WHO guidelines suggest a single dose may confer lifelong immunity, but in many exam or textbook contexts, the established figure remains 10 years. The vaccine is highly effective, generating lasting antibodies in the majority of recipients.

NODIA

300. (c) Abacavir
Zidovudine (AZT) and lamivudine are nucleoside reverse transcriptase inhibitors (NRTIs). Abacavir is another NRTI that blocks HIV's reverse transcriptase. In contrast, saquinavir, indinavir, and ritonavir are protease inhibitors, a different class of antiretrovirals. Abacavir is often part of combination therapies (e.g. with lamivudine) for HIV patients, though it can be associated with a potentially severe hypersensitivity reaction in those with certain HLA-B5701 genotypes.

301. (a) The clinical course of HACEK endocarditis tends to be acute and fulminant.
HACEK organisms (Haemophilus, Aggregatibacter, Cardiobacterium, Eikenella, Kingella) typically cause a more indolent (subacute) course of endocarditis, not a rapidly acute and fulminant one. Prolonged blood cultures are often needed to isolate these slow-growing bacteria, sometimes up to 2–3 weeks. Embolic phenomena can indeed be common,

negative organisms typically implicated in culture-negative endocarditis.

317. (d) Undulant fever
Spirochetes are spiral-shaped bacteria responsible for diseases such as leptospirosis (Leptospira interrogans), pinta (Treponema carateum), and relapsing fever (Borrelia recurrentis or related species). Undulant fever is another name for brucellosis, which is caused by Brucella species—Gram-negative coccobacilli, not spirochetes. Since Brucella does not belong to the spirochete family, undulant fever is not spirochetal in origin, making it the correct choice for not caused by Spirochetes."

318. (d) Leptospirosis
Leptospirosis (particularly Weil's disease) classically presents with a history of freshwater exposure, followed by fever, severe myalgia, jaundice, hemorrhages, and acute renal failure. Dengue fever typically features high fever and thrombocytopenia but not the profound jaundice/renal failure described. Falciparum malaria can be severe but is more strongly associated with cerebral involvement and hemolysis. Acute Hepatitis E infection causes jaundice but not usually hemorrhage or the severe systemic features seen here.

319. (b) Legionella
Spirochetes are spiral-shaped bacteria. Borrelia (e.g., Borrelia burgdorferi), Leptospira, and Treponema (e.g., Treponema pallidum) are classic spirochetes. Legionella pneumophila, by contrast, is a Gram-negative bacillus that causes Legionnaires' disease (primarily pneumonia and systemic symptoms). It is neither spiral-shaped nor classified among the Spirochetales. Therefore, Legionella is the organism here that is not a Spirochete."

320. (b) Larval form of Taenia solium
Neurocysticercosis occurs when humans ingest eggs of Taenia solium (pork tapeworm), which then hatch into larvae. These larvae can migrate to the central nervous system and form cysts in the brain. The adult form of Taenia solium resides in the human intestine and does not produce neurocysticercosis. Taenia saginata (beef tapeworm) is not typically associated with neurocysticercosis. Hence, the larval form of Taenia solium is the correct cause of this parasitic CNS infection.

321. (a) Temperature 39° C
The WHO defines severe malaria by factors such as severe anemia (Hb <5 g/dL in children), hypoglycemia, metabolic acidosis, cerebral involvement, renal failure, and other major complications. Although fever is common in malaria, a high temperature alone (e.g., >39°C) is not one of the formal WHO criteria for severe" disease. The other three options—severe anemia, hypoglycemia, and metabolic acidosis—are indeed recognized criteria for severe malaria.

322. (c) Strip test for recombinant K_{39} antigen
The rK39-based strip test is well-known for its high sensitivity and specificity in diagnosing visceral leishmaniasis, especially in endemic regions. Direct agglutination and latex agglutination tests can also be used but are generally less reliable. Fluorescent dye–based methods are more complex and not as widely used in straightforward diagnosis. The rK39 test has emerged as the most practical and accurate point-of-care assay for this parasitic infection.

323. (d) Praziquantel
Praziquantel is the standard treatment for all major species of Schistosoma (including S. mansoni, S. haematobium, and S. japonicum). It affects the parasite's membrane permeability, leading to paralysis and death of the worms. Niclosamide is used primarily for tapeworms, ivermectin for filarial and certain nematode infections, and albendazole for a range of other helminths. For schistosomiasis, praziquantel remains the universally recommended therapy.

324. (a) Brugia timori
Lymphatic filariasis is caused by Wuchereria bancrofti, Brugia malayi, and Brugia timori. Loa loa produces loiasis (eye worm), Onchocerca volvulus causes onchocerciasis (river blindness), and Mansonella perstans typically leads to mild or asymptomatic infections affecting serous cavities but does not classically cause significant

Click Here to Buy book on Amazon

engage MHC class II. CD2, CD5, and CD10 are present on various other immune cells but do not specifically define cytotoxic T cell function. Hence, CD8 is the hallmark phenotype of killer T cells.

340. (b) 7 - 10%
In HIV co-infection, the risk of latent TB progressing to active disease rises dramatically—often estimated at about 8-10% per year, compared to a much lower lifetime risk in immunocompetent individuals. As CD4 counts decline, immune surveillance against Mycobacterium tuberculosis weakens, making reactivation more likely. Thus, the 7–10% figure aligns with widely cited annual reactivation rates in HIV patients lacking appropriate prophylaxis or treatment.

341. (a) C1q
The classical complement pathway is initiated when C1q binds to the Fc regions of antibodies (IgG or IgM) that are attached to antigen. This interaction bridges adaptive immunity (antibodies) with the complement system (innate immunity). C3b and C5a are generated downstream in the cascade, facilitating opsonization and inflammation. Thus, C1q is the key subcomponent that launches the classical pathway through recognition of antigen-antibody complexes.

342. (c) Multiple myeloma
CRP is an acute-phase reactant commonly elevated in inflammatory, infectious, and autoimmune conditions such as Crohn's disease, vasculitis, and giant cell arteritis. In multiple myeloma, the immunoglobulin excess (particularly monoclonal protein) is not typically associated with a marked increase in CRP unless secondary infection or inflammation is present. Therefore, among the listed conditions, multiple myeloma is the except," as it does not intrinsically drive CRP to rise.

343. (d) Meningococcal meningitis
Although rifampicin is a key antitubercular medication, standard prophylaxis for TB exposure typically involves isoniazid (INH). Rifampicin prophylaxis is most famously used to prevent secondary cases of Neisseria meningitidis in close contacts. It reduces nasopharyngeal carriage and thereby transmission. While rifampicin can be part of regimens for leprosy or tuberculosis treatment, it is not the recommended prophylaxis for those conditions. Hence, meningococcal meningitis prophylaxis is the best match.

NODIA

344. (b) 1 and 2 only
The old universal antidote" (a mix of charcoal, magnesium oxide, and tannic acid) is indeed obsolete, having been replaced by activated charcoal alone. Flumazenil, while occasionally used to reverse procedural sedation, is generally avoided in benzodiazepine overdose because of seizure risk if there is co-ingestion (e.g., TCAs). Hence it's largely disfavored in toxicology practice. Meanwhile, acetylcysteine for paracetamol toxicity and pyridoxine for isoniazid remain standard, effective antidotes and are not obsolete.

345. (a) Tuberculosis
Phlyctenular keratoconjunctivitis is a hypersensitivity reaction, historically most often tied to Mycobacterium tuberculosis proteins. It presents with small nodules or phlyctenules" on the conjunctiva or cornea, causing redness, photophobia, and tearing. Though TB is the classic association, staphylococcal antigens can also trigger it. Syphilis, Stevens-Johnson syndrome, and leprosy cause different ocular manifestations but are not the usual cause of phlyctenular lesions.

346. (c) Both 1 and 2
Mesenchymal stem cells (MSCs) are indeed found in multiple tissues, including bone marrow and umbilical cord tissue (especially the Wharton's jelly portion of the cord). Researchers have identified these MSCs as valuable for regenerative medicine due to their capacity for differentiation and immune-modulatory properties. Thus, both statements accurately describe known sources of mesenchymal stem cells.

347. (d) Neither 1 nor 2

opportunistic infections. In this case, the rising CD4 count is linked to an immunological flare-up against Mycobacterium tuberculosis, causing enlarged lymph nodes and other inflammatory signs. This phenomenon is known as immune reconstitution inflammatory syndrome (IRIS). It is not necessarily due to drug resistance, defaulters, or poor compliance.

333. (b) Sodium bi-carbonate
In salicylate (aspirin) overdose, sodium bicarbonate is used to alkalinize both serum and urine. Raising blood pH helps shift salicylate out of the central nervous system, while alkalinization of the urine promotes salicylate excretion by trapping it in an ionized form. N-acetylcysteine is the antidote for acetaminophen overdose, and acetazolamide or allopurinol do not specifically address salicylate toxicity.

334. (c) p 53
The p53 gene (TP53) is famously mutated or inactivated in more than half of human cancers, including a range of solid tumors (breast, colon) and hematologic malignancies (childhood leukemias). It encodes a tumor suppressor protein crucial for DNA repair, cell cycle arrest, and apoptosis. Rb is associated with retinoblastoma and some other cancers, STK11 with Peutz-Jeghers syndrome, and VHL with von Hippel–Lindau disease. p53 stands out as the most commonly altered tumor suppressor gene.

335. (b) Hereditary motor and sensory neuropathy type 1
Many known single-gene disorders (e.g., haemochromatosis HFE mutation, achondroplasia's FGFR3 mutation, α-1 antitrypsin deficiency) stem from specific point mutations or small changes in the gene coding sequence. By contrast, the most common cause of hereditary motor and sensory neuropathy type 1 (Charcot-Marie-Tooth disease type 1A) involves a duplication of the PMP22 gene region on chromosome 17 rather than a simple point mutation. Consequently, it stands apart from the others, which are typically caused by point substitutions.

336. (b) Phenothiazines
Pinpoint (miosis) is typically associated with opioid overdose and excess cholinergic stimulation (e.g., carbamates). Barbiturate overdose often leads to CNS depression and can cause somewhat constricted or mid-position pupils, but opioids are the classic cause of marked miosis. Phenothiazines, by contrast, often have anticholinergic properties that can lead to mydriasis or at least not typically pinpoint pupils. Therefore, phenothiazines are the except" choice among the listed agents.

337. (d) Cranial nerve and brain stem lesions
After the initial acute cholinergic crisis, some organophosphate-poisoned patients develop an intermediate syndrome" a few days later, featuring prominent weakness, cranial nerve involvement (bulbar weakness), and proximal limb muscle weakness—reflecting neuromuscular junction dysfunction. This contrasts with the later organophosphate-induced delayed neuropathy," which occurs weeks afterward, involving peripheral nerves. The intermediate syndrome's hallmark is the combination of respiratory muscle fatigue, cranial nerve involvement, and brainstem-related deficits (though not usually structural lesions on imaging).

338. (d) Lithium
Activated charcoal is beneficial for binding many orally ingested toxins—especially drugs with large molecular structure or those that adhere to carbon-based adsorbents (e.g., carbamazepine, dapsone, quinine). However, lithium (a small, charged ion) is poorly adsorbed by activated charcoal, making it ineffective in such poisoning. Other measures, such as enhanced elimination via hemodialysis, are employed in significant lithium overdose.

339. (c) CD8
Killer T lymphocytes (cytotoxic T cells) express the CD8 surface marker and recognize antigenic peptides presented by MHC class I molecules. This allows them to identify and destroy host cells infected with intracellular pathogens (e.g., viruses). CD4 T cells (helper T cells)

Downloaded from www.pdf.tube

single most common recognized presentation in the general population—particularly in otherwise healthy children—is Erythema infectiosum.

369. (b) 1 and 3 only
Gastric lavage is contraindicated in cases of kerosene ingestion due to the high risk of aspiration pneumonitis. Likewise, corrosive poisoning (acids or alkalis) poses severe danger if attempting lavage, as re-exposure of the esophagus/stomach to the corrosive can worsen injury or cause perforation. Organophosphorus and iron poisonings, under certain circumstances, may benefit from careful gastric decontamination if performed early and safely. Therefore, kerosene (1) and corrosives (3) are the classic contra indications here.

370. (d) Proline
Essential amino acids are those the body cannot synthesize in sufficient quantities and must therefore come from the diet. Leucine, threonine, and tryptophan are all essential in humans. Proline, on the other hand, can be synthesized endogenously from other metabolic precursors, making it a nonessential amino acid.

371. (d) 1 → 3 → 2 → 4
Typical average fat contents are highest in buffalo milk (around 7–8 %), followed next by goat milk (≈3.8–4.1 %), then cow milk (≈3.0–4.0 %), and human milk often around 3–4 % but generally on the lower side in standard references when directly compared. Thus the descending order of fat percentage is Buffalo (1) Goat (3) Cow (2) Human (4).

372. (c) 2 and 3
Lauric acid (12 : 0) and palmitic acid (16 : 0) are saturated fatty acids. Linoleic acid (18 : 2) is a polyunsaturated essential fatty acid, and oleic acid (18 : 1) is monounsaturated. Hence 2 (linoleic) and 3 (oleic) are the unsaturated fatty acids in this list.

373. (a) decreased iron stores without any other detectable abnormalities
Iron deficiency typically progresses in stages: first, ferritin and stored iron are depleted (still no obvious lab or clinical anomalies). Next, further changes manifest as low serum iron and transferrin saturation. Finally, haemoglobin production and RBC indices drop, resulting in iron deficiency anaemia. In many community surveys, the earliest/latent stage—loss of iron stores—is believed to be most common in populations, especially in developing countries like India, making option (a) the most widely prevalent stage.

374. (c) may be caused by fungi or bacteria
Mycetoma (Madura foot) is a persistent infection of subcutaneous tissues typically caused either by filamentous bacteria (Actinomycetoma) or by true fungi (Eumycetoma). It enters through puncture wounds, not via the bloodstream, and can spread to deeper structures over time. The disease characteristically produces tumefaction, draining sinuses, and grains" in the exudate. Its etiology being either fungal or bacterial is the main hallmark. Superficial structures alone are not the only ones affected; deeper tissues are often involved as well.

NODIA

375. (d) 40 mg
Miltefosine dosing for visceral leishmaniasis (kala-azar) in children is approximately 2.5 mg/kg/day for 28 days. For a 15 kg child, that is ~37.5 mg/day, typically rounded up to 40 mg. This regimen ensures effective parasite clearance and is well-established under national guidelines for kala-azar. Lower doses (10–30 mg) would be insufficient for optimal therapy, whereas 40 mg/day approximates the recommended pediatric dose based on body weight.

376. (d) Orchitis
Mumps—a paramyxovirus infection—classically causes parotid gland swelling. In post-pubertal males, orchitis (inflammation of the testes) is the most frequent and characteristic extra-salivary complication. It can present with testicular pain, swelling, and sometimes lead to testicular atrophy. Pancreatitis does occur but is less common. Polyarthritis and central nervous system complications (e.g., meningitis) can also

Standard capsule endoscopy cameras typically pass through the gut by peristalsis and are not actively steered externally using magnetic guidance (at least not in routine practice when this question was framed). Moreover, the commonly used pill cameras" take images at around 2–6 frames per second, though newer technologies can vary. The claim of 12 images per second was not typical of widely adopted early systems. Hence, neither statement accurately describes standard pill endoscopy.

348. (b) β-carotene
Golden rice is genetically engineered to produce β-carotene (a precursor to Vitamin A) in the rice endosperm. This substance imparts a yellow-orange or golden" hue to the grains. The main goal of golden rice is to address Vitamin A deficiency in populations dependent on rice as a staple. By boosting β-carotene, the rice can help mitigate ailments resulting from inadequate dietary Vitamin A, such as night blindness and immune system deficiencies.

349. (d) USA
American researchers have made strides in tissue engineering by creating a functional mini-nervous system" in vitro that can potentially be transplanted. Such scientific breakthroughs often emerge from collaborative research institutions in the United States, leveraging advanced biotechnologies and stem cell science. This innovation offers hope for treating various neurological conditions and represents a leap forward in regenerative medicine, where lab-grown tissues might one day restore or replace damaged structures in patients.

350. (b) Rash is usually vesicular
Measles (rubeola), a paramyxovirus infection, produces a characteristic maculopapular rash that usually begins on the face and spreads downward. It is transmitted via respiratory droplets and has an incubation period of roughly two weeks (about 10–14 days). The rash is not vesicular (that finding is more typical of varicella or herpes viruses). Therefore, stating that measles rash is usually vesicular" is incorrect.

351. (b) Painful and itchy maculo-papular lesions
Secondary syphilis arises several weeks after the primary chancre, with systemic manifestations like fever, malaise, lymphadenopathy, and a diffuse rash (often including palms and soles). The rash is typically painless and only mildly pruritic (if at all), not prominently painful or intensely itchy. Additionally, systemic involvement may include meningitis, hepatitis, renal, or ocular complications. Therefore, describing the lesions as painful and itchy is uncharacteristic, making option (b) the exception.

352. (d) RBC of all ages
Plasmodium falciparum is notorious for infecting red blood cells at any stage of maturation, unlike P. vivax or P. ovale, which tend to select younger RBCs (reticulocytes), or P. malariae, which prefers older cells. Because P. falciparum can invade erythrocytes across all ages, parasitemia can become very high, often causing severe clinical manifestations. This universal RBC tropism partly explains why P. falciparum infections can be more dangerous than other malarial species.

353. (d) Giardia cysts are resistant to heat and desiccation
Giardiasis, caused by Giardia lamblia, typically involves the duodenum and upper jejunum, leading to symptoms of abdominal bloating, flatulence, and either acute or chronic diarrhea. Although Giardia cysts are hardy in cold fresh water and resist standard chlorination, they are effectively killed by boiling (heat) and thorough drying (desiccation). Thus, the statement that the cysts are resistant to heat and desiccation" is inaccurate, making option (d) the exception.

354. (c) Sarcoidosis
Sulphasalazine is a sulfa-based anti-inflammatory agent commonly used in inflammatory bowel diseases (such as Crohn's disease and ulcerative colitis) and in rheumatoid arthritis. It exerts both immunomodulatory and anti-inflammatory effects. However, it is not a recognized or standard treatment for sarcoidosis, an inflammatory condition characterized by non-caseating granulomas

Click Here to Buy book on Amazon

in the lungs and other organs. Sarcoidosis management typically involves corticosteroids, sometimes with other immunosuppressants, rather than sulphasalazine.

355. (c) Cilastin inhibits an enzyme in the kidney that destroys imipenem
Imipenem is a broad-spectrum carbapenem antibiotic. In the renal tubules, it can be metabolized by the enzyme dehydropeptidase I, reducing its efficacy and generating nephrotoxic metabolites. Cilastatin specifically inhibits this renal dehydropeptidase I, thereby protecting imipenem from degradation. This combination preserves imipenem's antibacterial activity and decreases nephrotoxicity. Cilastatin does not function by inhibiting β-lactamases, aiding gastrointestinal absorption, or affecting coagulation pathways, so (c) is the correct rationale.

356. (b) Gancyclovir
CMV retinitis is a serious opportunistic infection in immunocompromised patients (e.g., those with AIDS). Ganciclovir (or its prodrug valganciclovir) is the mainstay for treating CMV retinitis, targeting viral DNA polymerase. Acyclovir is effective primarily against herpes simplex and varicella-zoster viruses, whereas pentamidine is used mainly for Pneumocystis pneumonia prophylaxis/ treatment, and co-trimoxazole is also associated with Pneumocystis prophylaxis and other infections. Thus, ganciclovir stands out as the treatment of choice for CMV retinitis.

357. (a) Amphotericin-B
A positive India ink preparation from the CSF is classic for Cryptococcus neoformans. In an HIV-infected patient with subacute meningitis, the most likely diagnosis is cryptococcal meningitis. The recommended initial therapy is Amphotericin B plus flucytosine, followed by fluconazole consolidation. Amoxicillin is for bacterial infections, acyclovir targets herpes viruses, and anti-tubercular drugs address TB meningitis (which typically shows a different profile). Amphotericin B is thus the first-line choice for severe cryptococcal infections.

358. (a) Tuberculosis
Tuberculosis (TB) can manifest with granulomas in multiple organs, including lungs, bones (Pott's spine), brain (tuberculomas), and meninges (TB meningitis). In an immunocompromised patient, TB often presents atypically, but formation of granulomatous lesions remains common. Leprosy typically affects skin and peripheral nerves; sarcoidosis produces non-caseating granulomas (often sparing the brain); cryptococcosis can cause meningoencephalitis but generally not gumma-like" granulomas in bones. Thus, widespread granulomatous involvement in an immunocompromised host fits TB best.

359. (c) Actinomycosis
Actinomycosis is caused by Actinomyces israelii, a filamentous, gram-positive bacterium, not a fungus, despite its name. Chromomycosis (chromoblastomycosis), pheohyphomycosis, and blastomycosis are genuine fungal infections caused by distinct fungal species. The confusion often arises because Actinomyces forms branching filaments and was historically mistaken for a fungus. Nevertheless, it is classified as a bacterium based on cell wall properties and other microbiological features.

360. (a) Polyneuropathy
Excessive vitamin B_6 (pyridoxine) intake can lead to sensory neuropathy or polyneuropathy, causing numbness, tingling, and balance issues. Unlike vitamins A or D, which can cause hypercalcemia or liver toxicity at high levels, pyridoxine toxicity is most recognized for neurological manifestations. Extremely large doses over prolonged periods are typically required for such adverse effects to occur.

361. (b) Neuro-paralytic symptoms
Elapidae snakes (e.g., cobras, kraits, coral snakes) produce primarily neurotoxic venoms that act at neuromuscular junctions, leading to ptosis, ophthalmoplegia, bulbar palsies, and respiratory paralysis if untreated. Viper bites, by contrast, are more associated with coagulopathy, bleeding, and local tissue necrosis. Though some overlap exists, neuro-paralytic symptoms"

NODIA

are the hallmark of significant Elapidae envenomation, distinguishing it from other snake families' typical presentations.

362. (b) Opioid poisoning
Opioid (e.g., morphine, heroin) overdose classically presents with pinpoint pupils (miosis), respiratory depression, and depressed consciousness (possible coma). Bradycardia and hypotension may also occur. Tricyclic antidepressant overdose typically shows anticholinergic signs (dilated pupils), benzodiazepine overdose rarely causes pinpoint pupils, and organophosphorus poisoning can also involve miosis but is usually accompanied by excessive salivation, sweating, and other cholinergic features (SLUDGE). The most fitting picture here is opioid toxicity.

363. (c) Tenofovir
HIV antiretroviral classes include nucleoside/nucleotide reverse transcriptase inhibitors (NRTIs), non-nucleoside RTIs, protease inhibitors, integrase inhibitors, etc. Tenofovir is a nucleotide reverse transcriptase inhibitor, critical in many first-line HIV treatment regimens. Ritonavir, indinavir, and nelfinavir are protease inhibitors, often used to boost other drugs via CYP450 interactions or as part of combination antiretroviral therapy. Thus, among these options, only tenofovir qualifies as an NRTI (specifically a nucleotide analog).

364. (b) Hypercalcemia
Tumor lysis syndrome arises when massive numbers of tumor cells (often hematologic malignancies like lymphomas/leukemias) are lysed rapidly, releasing their intracellular contents into the bloodstream. This causes hyperkalemia, hyper phosphatemia, and hyperuricemia, and typically hypocalcemia (because the released phosphate binds calcium). Hypercalcemia is not typical in this scenario. Hence, the presence of hypercalcemia is the except" among these commonly elevated constituents.

365. (b) 1, 3 and 4 only

NODIA

Statement 1 is correct: Male-to-female HIV transmission risk is generally higher than female-to-male.

1. Statement 2 is incorrect: Even non-ulcerative STDs (e.g., Chlamydia, Trichomonas) do increase HIV transmission risk by mucosal inflammation.
2. Statement 3 is correct: Ulcerative or inflammatory STDs (syphilis, chancroid, HSV) raise HIV transmission.
3. Statement 4 is correct: Oral sex carries a lower HIV transmission risk compared to receptive anal intercourse.

Hence, statements 1, 3, and 4 are correct; 2 is not.

366. (c) Both 1 and 2
Thalidomide is widely recognized for its efficacy in Erythema Nodosum Leprosum (ENL), a painful immunological complication of leprosy. It suppresses the associated inflammation through its immuno modulatory actions, reducing levels of TNF-α and other inflammatory mediators. In addition to this anti-inflammatory role, it modulates immune pathways, helping to control the acute symptoms. Hence, it remains a drug of choice for ENL, and it indeed exhibits immuno modulatory and anti-inflammatory properties.

367. (b) Vitamin A intoxication
Excessive intake of vitamin A can lead to hypervitaminosis A, which presents with raised intracranial pressure (pseudotumor cerebri), headache, papilledema, and sometimes other neurological symptoms. This aligns with the described scenario of severe headache and papilledema in a patient on megavitamin therapy. Overconsumption of other vitamins (B_{12}, E, or K) does not typically induce such a classical elevation in intracranial pressure.

368. (c) Erythema infectiosum
Human Parvovirus B19 is the etiological agent of Erythema infectiosum (fifth disease") in children, presenting with a slapped cheek" rash and mild systemic symptoms. While Parvovirus B19 can indeed cause aplastic crisis in those with hemolytic anemias (e.g. sickle cell), hydrops fetalis in pregnancy, and neonatal anemia, the

Oseltamivir (a neuraminidase inhibitor) is recommended for both treatment and prophylaxis of influenza A (including pandemic H1N1) in exposed or high-risk individuals. Zanamivir is another neuraminidase inhibitor used mainly by inhalation but is less convenient and can pose challenges for prophylactic use in some patients. Ribavirin is used for severe RSV infections and certain viral hemorrhagic fevers. Amantadine is effective against some strains of influenza A but is no longer the primary prophylactic agent for H1N1.

386. (c) Human adult body contains about 50 g of Magnesium
A normal adult body typically contains around 20–25 g of total magnesium, with about half deposited in bones. Magnesium is indeed essential for many enzymatic and metabolic processes, including those involving calcium and potassium homeostasis. The recommended daily dietary intake of magnesium for adults is generally in the range of 300–400 mg. Hence, saying an adult body contains 50 g of magnesium is too high and thus not accurate.

387. (a) Groundnut oil
Groundnut (peanut) oil typically has a high proportion of mono-unsaturated fatty acids (MUFA) and a moderate amount of linoleic acid (a polyunsaturated fatty acid). By contrast, safflower oil has very high linoleic acid, flax seed oil is rich in alpha-linolenic acid (another polyunsaturated fatty acid), and palm kernel oil is predominantly saturated. Consequently, for a balance of MUFA and moderate linoleic acid, groundnut oil is the best fit among these options.

388. (d) Zinc
Zinc deficiency in pregnancy has been linked to poor outcomes, including intrauterine growth restriction (IUGR), preterm birth, and even certain congenital anomalies (like neural tube defects). Adequate zinc is crucial for cellular growth, nucleic acid metabolism, and protein synthesis. While copper, selenium, and other trace minerals are also important, the deficiency most characteristically associated with adverse pregnancy outcomes and congenital malformations (such as anencephaly) is zinc deficiency.

389. (a) Piperazine
For hookworm infections, recommended single-dose treatments include Albendazole (often 400 mg), Mebendazole, Levamisole, or Pyrantel pamoate. These drugs efficiently reduce worm burden in one or few doses. Piperazine is primarily used for roundworm (Ascaris lumbricoides) or pinworm (Enterobius vermicularis) and typically is not a first-line single-dose agent for hookworm. Hence, Piperazine is the correct EXCEPT" regarding single-dose therapy for human hookworm reservoir treatment.

390. (c) Healthy sibling
VZIG is given prophylactically to high-risk, susceptible individuals exposed to Varicella-Zoster virus. High-risk groups include immuno compromised persons (e.g., those with HIV/AIDS who have low CD4 counts), pregnant women (to avoid congenital varicella), and neonates born to mothers who develop varicella around delivery. A healthy sibling with a normal immune system is not considered high-risk. While monitoring might still be advisable, routine VZIG for a healthy sibling is not indicated because they can usually mount an immune response or receive vaccination.

391. (a) Artemether and Lumefantrine
In India, malaria treatment guidelines for pregnant women recommend different drug regimens depending on the trimester and regional drug resistance patterns. In the North Eastern states, there is widespread resistance to Sulphadoxine-Pyrimethamine (SP). Consequently, Artemether–Lumefantrine is a preferred artemisinin-based combination therapy (ACT) for uncomplicated P. falciparum malaria in the 2nd and 3rd trimesters. This helps achieve optimal cure rates and prevents complications. Other regimens involving SP are less effective in areas of known SP resistance, which includes much of the Northeast.

392. (c) Reduce the staining

Downloaded from www.pdf.tube

happen, yet orchitis remains the standout extra-salivary manifestation in adults.

377. (a) Vitamin A
WHO recommends giving high-dose Vitamin A supplementation to children with measles—particularly severe measles or in regions with high mortality—to reduce complications and death. Measles depletes vitamin A stores, and deficiency exacerbates the illness, increasing the risk of blindness and mortality. Administering vitamin A (often over two days) has been shown to improve outcomes and is part of the standard management protocol.

378. (b) Stavudine (d4T)
Stavudine (d4T), one of the older nucleoside reverse transcriptase inhibitors, is well known for serious metabolic side-effects like lactic acidosis, lipodystrophy, neuropathy, and hyperlipidemia. Current antiretroviral therapy guidelines have phased it out in favor of agents with fewer toxicities (e.g., tenofovir, lamivudine). Zidovudine can cause anemia and myopathy but is not as strongly contraindicated as d4T, while tenofovir and lamivudine are frequently used first-line.

379. (b) Inactivated whole virus vaccine
Covaxin, developed by Bharat Biotech in collaboration with ICMR, is produced by inactivating (killing) SARS-CoV-2 virus particles and formulating them as a whole-virion vaccine. Thus it cannot replicate and is considered a traditional inactivated platform. It is not a live attenuated vaccine.

380. (a) Fresh dark green vegetables
Vitamin K_1 (phylloquinone) is primarily found in dark green leafy vegetables (e.g., spinach, kale, broccoli). Vitamin K_2 (menaquinone) is produced by gut bacteria. By contrast, sunlight exposure is relevant for vitamin D synthesis, citrus fruits are a good source of vitamin C, and foods with polyunsaturated fatty acids help provide essential fats but are not a major source of vitamin K.

381. (d) 100 times more
Early in a primary immune response, IgM is the first isotype produced. To drive isotype switching and elicit significant IgG production (especially on first exposure), a substantially higher dose of antigen is needed—commonly cited as up to 100-fold greater than the dose needed to trigger IgM alone. This extra stimulus helps engage T helper cells and the molecular signals required for class (isotype) switching to IgG, which is generally more specific and has higher affinity.

382. (b) 2 lac IU on two successive days
For children ≥12 months with early xerophthalmia (e.g., X1B, X2), WHO recommends giving 200,000 IU (2 lac IU) of vitamin A immediately and another 200,000 IU the next day. Often, a third dose is given about 2 weeks later if the deficiency is severe or if ocular signs persist. Children under 12 months typically receive half that dose (100,000 IU).

383. (a) Naturally occurring toxin
Endemic ascites (also known in some regions as veno-occlusive disease") often involves chronic consumption of foods contaminated with toxic alkaloids (pyrrolizidine alkaloids) from plants like Crotalaria. These naturally occurring toxins damage hepatic sinusoids and small veins, causing progressive portal hypertension and ascites. While infectious agents produce many other forms of ascites, the specifically termed endemic" condition is classically linked to these dietary toxins rather than bacterial, fungal, or viral etiologies.

384. (b) Platelet count (<1,00,000/mm^3)
SIRS criteria include fever (>38°C) or hypothermia (<36°C), elevated heart rate, increased respiratory rate (≥20/min) or low $PaCO_2$, and abnormal white blood cell count (high or low). A platelet count of <1,00,000/mm^3 is not part of the standard SIRS definition, though thrombocytopenia can appear in sepsis or other critical illnesses. Because the question states EXCEPT," the platelet count abnormality does not feature in SIRS's basic criteria, making it the best choice for the incorrect option.

385. (b) Oseltamivir

NODIA

lymphatic disease. Brugia timori specifically contributes to lymphatic filariasis in certain geographic regions, making it the correct choice among the listed organisms.

325. (c) Nystatin
For invasive candidiasis in neutropenic patients, recommended options include amphotericin B formulations, echinocandins (like caspofungin), and azoles such as voriconazole. Nystatin is primarily used as a topical or oral suspension for mild oropharyngeal or cutaneous candidiasis. It is not suitable for treating deep-seated or systemic infections in severely immunocompromised individuals. Thus, Nystatin is the agent not recommended" in this scenario.

326. (c) Orthostatic hypotension
Orthostatic (postural) hypotension is often the earliest clinically detectable sign of volume depletion, occurring when fluid losses reduce venous return enough that standing causes a significant drop in blood pressure. Decreased urine output is also an early physiologic response, but it may not be as immediately apparent clinically. Loss of skin turgor and sunken eyes tend to manifest later or in more severe stages of hypovolemia. Hence, orthostatic hypotension is considered the first key clinical indicator.

327. (c) It is available as oral preparation.
Aztreonam is a monobactam antibiotic highly active against Gram-negative aerobic bacteria (including Pseudomonas) but with virtually no activity against Gram-positive organisms or anaerobes. It is generally administered intravenously or intramuscularly, not orally. Twice-daily to three-times-daily dosing (including 12-hour regimens) is standard. Hence, the statement It is available as oral preparation" is not correct, making it the best answer among the given options for what is not correct."

328. (b) Secondary
Condyloma lata are highly infectious moist lesions typically seen in secondary syphilis. They often appear in warm, moist anatomical areas, such as the perineum. Primary syphilis is characterized by a chancre at the site of infection, whereas tertiary syphilis can involve gummas, neurosyphilis, or cardiovascular complications. Congenital syphilis presents differently (e.g., snuffles, rash, bone involvement). Thus, condyloma lata is a hallmark of the secondary stage.

329. (c) Both 1 and 2
Vitamin B_6 is essential in numerous biochemical reactions, particularly in amino acid metabolism (e.g., transamination, decarboxylation). The active coenzyme form in the human body is pyridoxal 5-phosphate (PLP). This form participates in synthesizing neurotransmitters, hemoglobin, and other important compounds. Hence, both given statements are correct: Vitamin B_6 is indeed a cofactor for amino acid metabolism, and PLP is the standard biologically active form.

330. (a) Thermal
In leprosy (Hansen's disease), small unmyelinated fibers subserving temperature (thermal) and pain sensations tend to be affected first. As Mycobacterium leprae invades peripheral nerves, the initial clinical hallmark is loss of the ability to perceive temperature changes; later, pain, light touch, and deep-pressure/vibration may become compromised. The earliest and most characteristic finding is typically decreased or absent thermal sensation in patches of hypoesthetic skin.

331. (a) Human papilloma virus
Common warts (verrucae vulgaris) are caused by certain strains of Human Papillomavirus (HPV), typically types 2 and 4. They often manifest as small, firm papules with a rough surface, usually appearing on hands, fingers, or other body sites. Cytomegalovirus, HIV, and Herpesvirus families are associated with different disease processes, not typical benign cutaneous warts.

332. (c) Immune reconstitution inflammatory syndrome
When a patient with HIV begins effective antiretroviral therapy (ART), the recovering immune system can mount an exaggerated inflammatory response to previously acquired

Click Here to Buy book on Amazon

When giving iron dextran intramuscularly, the Z-track method displaces the skin and subcutaneous tissue laterally before the injection. After injecting, the skin is released, trapping the medication within the muscle rather than letting it leak back into subcutaneous tissues or the skin. This helps prevent local staining (the dark discoloration of skin), irritation, and reduces the chance of subcutaneous tracking. While it may also reduce discomfort or infection risk, its most well-known purpose is to avoid staining of the skin.

393. (b) 1 and 2
Folic acid is essential for red blood cell maturation and normal hematopoiesis, and it is also crucial for the synthesis of nucleic acids (DNA, RNA). However, folic acid is not heat-stable at high temperatures: prolonged boiling or cooking destroys a significant fraction of its activity. Hence it is incorrect to say it is resistant" to boiling. Statements #1 and #2 are true, while #3 is false.

394. (c) Escherichia
Facultative anaerobes are organisms that can grow in both aerobic and anaerobic conditions. Escherichia coli is a prime example, capable of thriving with or without oxygen. Bacteroides and Clostridium are classically strict (obligate) anaerobes that grow in the absence of oxygen, and Pseudomonas is predominantly an aerobic organism requiring oxygen for growth. Because Escherichia (especially E. coli) can survive in either environment, it is correctly classified as a facultative anaerobe among the choices provided.

395. (c) Filariasis
Filariasis (particularly due to Wuchereria bancrofti) is endemic in many parts of India and is the leading parasitic cause of lymphedema. The infection leads to lymphatic obstruction and progressive swelling of the affected limb. Lymphoedema tarda is a primary lymphatic disorder that manifests later in life but is far less common. Carcinoma of the penis and tubercular lymphadenopathy can occasionally cause regional lymphatic disruption, yet filariasis remains the most frequent culprit for unilateral leg swelling in the Indian context.

396. (c) Loss of consciousness
Tetanus is characterized by hyperactive muscle spasms and rigidity, leading to features like lockjaw (trismus), risus sardonicus (sustained facial muscle spasm), and opisthotonus (arched back). Patients often remain awake and fully conscious despite excruciating spasms, because the toxin affects inhibitory neurons rather than higher cortical functions. Respiratory failure can ensue if spasms compromise the respiratory muscles. Hence, loss of consciousness is not typical, and that makes (c) the not" correct clinical feature for tetanus.

NODIA

397. (c) A-4 B-3 C-2 D-1
Cisplatin is well known for nephrotoxicity (tubular necrosis). Adriamycin (doxorubicin) can cause dose-dependent cardiomyopathy. Bleomycin is linked with pulmonary fibrosis, especially above certain cumulative doses. Cyclophosphamide, metabolized to acrolein, often causes hemorrhagic cystitis, preventable by adequate hydration and coadministration of mesna. Matching them yields: A (Cisplatin) → 4 (Tubular necrosis), B (Adriamycin) → 3 (Cardiomyopathy), C (Bleomycin) → 2 (Pulmonary fibrosis), D (Cyclophosphamide) → 1 (Haemorrhagic cystitis).

398. (a) IgG only
Of the major immunoglobulin classes, only IgG is normally transferred from mother to fetus via the placenta, bestowing passive immunity during the neonatal period. IgA, which can appear in breast milk, is not transported transplacentally. Consequently, newborns acquire IgG antibodies to pathogens to which the mother is immune, helping protect them in the first few months of life. Neither IgM nor IgE crosses the placenta in significant amounts; IgG remains the key immunoglobulin for fetal immune defense.

399. (a) 1 only
Live vaccines (e.g., measles, oral polio) generally elicit a more robust, long-lasting immune response than killed vaccines. Hence statement

Among the congenital infections, cytomegalovirus (CMV) is the most frequent viral agent causing intrauterine infection worldwide. While rubella, herpes simplex, and HIV can also infect the fetus, CMV surpasses them in incidence. Congenital CMV can lead to hearing loss, neurodevelopmental issues, and other sequelae if the mother acquires primary infection or reactivation during pregnancy. Routine screening is not universally done, but CMV remains the leading congenital viral infection.

429. (b) 1 and 2"
Folic acid is crucial for DNA and RNA synthesis, thus supporting normal blood cell maturation in the bone marrow. It is, however, not heat-stable. Folic acid is readily destroyed by excessive cooking or boiling, so statement 3 is incorrect. Consequently, statements 1 and 2 are accurate: folic acid is essential for hematopoiesis and nucleic acid synthesis.

430. (b) 1 and 2 only"
Dietary fiber helps bind or dilute potential mutagens in the colon, thus can reduce carcinogenic risk (statement 1). Fiber also slows carbohydrate absorption, moderating postprandial glucose spikes (statement 2). However, it generally decreases transit time by promoting more rapid passage through the bowel rather than increasing it. A shorter transit time means fewer days from ingestion to excretion. Since statement 3 says increases," it is incorrect. Hence only statements 1 and 2 are valid roles of dietary fiber.

431. (b) 1–3–2–4"
Vitamin A deficiency typically follows a predictable progression:
1. Night blindness (Nyctalopia) is the earliest symptom (Item 1).
2. Conjunctival xerosis next appears (Item 3).
3. Corneal xerosis then develops (Item 2).
4. Finally, keratomalacia (Item 4) can ensue if untreated, causing corneal ulceration and severe visual loss.

Hence the sequence 1 → 3 → 2 → 4 represents the clinical evolution of vitamin A deficiency in the eye.

432. (a) 1 and 2 only"
According to WHO guidelines, paucibacillary leprosy (PB) in adults is treated for 6 months with Rifampicin plus Dapsone. Multi bacillary (MB) leprosy typically uses three drugs: rifampicin, dapsone, and clofazimine. Minocycline is an alternative in certain resistant or special cases, but not part of the standard PB regimen. Hence, among the listed options, items (1) rifampicin and (2) dapsone are correct for standard paucibacillary therapy.

433. (c) 1 and 4" (i.e., Hepatitis A and E)
Hepatitis A and E viruses typically spread via the fecal-oral route, often through contaminated food or water. In contrast, hepatitis B and C are primarily transmitted parenterally (e.g., through blood, bodily fluids, or unsafe injections). Hence, among the listed hepatitis viruses, A (1) and E (4) are the classic causes of water-borne or food-borne hepatitis outbreaks and are grouped together for their similar fecal-oral transmission mode.

434. (d) A-3 B-4 C-2 D-1
Each of these rickettsial diseases is caused by a distinct organism:
1. Epidemic typhus → R. prowazekii (transmitted by body lice)
2. Murine (endemic) typhus → R. typhi (from rat fleas)
3. Scrub typhus → R. tsutsugamushi (from chigger bites)
4. Indian tick typhus (a form of spotted fever) → R. conorii.

435. (d)A-3 B-2 C-1 D-4
Different arthropod vectors transmit characteristic infections:
1. Hard ticks (Ixodidae) commonly transmit tularemia (Francisella tularensis).
2. Sandflies spread cutaneous leishmaniasis, sometimes called Oriental sore."
3. The louse (Pediculus humanus) transmits epidemic typhus (Rickettsia prowazekii).

Downloaded from www.pdf.tube

(postauricular) and suboccipital lymph node enlargement (4). A false membrane in the throat (3) is more typical of diphtheria, not rubella. While rubella's rash may appear soon after onset, it is more accurate to note a short prodrome rather than an immediate rash within 24 hours (1 can be misleading). Hence, statements 2 and 4 are the established features.

407. (c) All HIV positive mothers transmit infection to their newborn children.
Vertical transmission (mother-to-child) of HIV is not inevitable—modern interventions (antiretroviral therapy, safe delivery practices, and avoidance of breastfeeding in certain contexts) can drastically reduce perinatal HIV transmission to well below 30%. HIV indeed does not transmit via casual fomites; every infected individual typically needs ART at some stage under current guidelines; and transfusion of truly HIV-positive blood is extremely high risk (close to 100%). Hence, (c) is false.

408. (d) Administration of antibiotic and observation
In an uncomplicated amoebic liver abscess of moderate size (around 5 cm), the usual first-line treatment is a course of an anti-amoebic agent (commonly metronidazole). Many abscesses respond promptly, reducing in size and symptoms without invasive intervention. Aspiration or catheter drainage is typically reserved for very large abscesses (often >10 cm), risk of rupture, or inadequate clinical response to medication. Since this patient's abscess is 5 cm and not extremely large, antibiotics and close observation remain the initial standard approach.

409. (d) Acute pancreatitis
Typhoid fever (Salmonella typhi infection) is notorious for abdominal complications. Intestinal perforation (leading to peritonitis) is a well-recognized and critical surgical emergency. The organism can also invade the gallbladder causing cholecystitis, and, although less common, splenic abscesses have been documented. By contrast, acute pancreatitis is rarely encountered in typhoid fever and is not classically listed among its important surgical complications. Therefore, among the given choices, acute pancreatitis stands out as the least typical complication in typhoid.

410. (b) lower gastro intestinal bleed
Ascaris lumbricoides (roundworm) can cause mechanical issues and migrate into ductal systems. Common complications include intestinal obstruction—particularly in heavy infestations—biliary tract invasion leading to cholangitis or obstructive jaundice, and even pancreatic duct invasion precipitating pancreatitis. However, overt lower gastrointestinal bleeding is not characteristically associated with Ascaris infection. While minor mucosal inflammation can occur, significant lower GI hemorrhage is uncharacteristic. Therefore, (b) lower GI bleed does not fit among the recognized complications of roundworm infestation.

NODIA

411. (d) MDR-TB
Cholera is notorious for profuse watery diarrhea leading to dehydration. Cerebral malaria and pertussis (in young children) can each produce vomiting, reduced fluid intake, or prolonged fever, sometimes resulting in dehydration. Multidrug-resistant TB, however, is a chronic pulmonary (or extrapulmonary) infection not typically characterized by acute fluid loss that leads to dehydration. Although weight loss or general weakness may occur in TB, frank dehydration is not a classical or defining feature.

412. (c) 15% gluteraldehyde
Commonly recommended scolicidal agents for hydatid cysts include hypertonic saline (20%), silver nitrate (0.5%), and sometimes high-concentration ethanol (absolute alcohol). These agents are lethal to hydatid cyst protoscolices and help prevent secondary cyst formation. Glutaraldehyde, especially at 15%, is generally not a standard agent for this purpose due to safety concerns, potential toxicity, and insufficient data regarding efficacy against echinococcal protoscolices compared to other agents. Thus, 15% gluteraldehyde is the exception here.

413. (a) It has its greatest effect on multiplying organisms

4. Responsive care giving
5. Early learning
6. Immunization
7. Safety and security
8. Supplementation

Select the correct answer using the code given below.

(a) 1, 2, 4, 5 and 7
(b) 1, 2, 3, 4 and 5
(c) 1, 4, 6, 7 and 8
(d) 2, 3, 5, 6 and 8

2023

16. A full-term baby born with birth weight of 2000 g comes for well-baby visit at two months of age. Which of the following nutritional supplements would you advise?

(a) Vitamin D orally 200 IU/day up to 3 months of age
(b) Vitamin D orally 200 IU/day up to 1 year of age
(c) Iron orally 2 mg/kg/day up to 3 months of age
(d) Iron orally 2 mg/kg/day up to 1 year of age

2023

17. Which of the following are common problems in babies with intrauterine growth restriction delivered at term gestation?

1. Hypothermia
2. Hypoglycemia
3. Hypocalcemia

Select the correct answer using the code given below.

2023

18. Which one of the following statements is correct regarding a normal newborn's growth?

(a) Weight loss may be 8–10% of birth weight in the initial two weeks of life.
(b) Birth weight is regained by 7–10 days of age.
(c) Birth weight is regained within first week of life.
(d) Weight loss may be 12–15% of birth weight in the initial two weeks of life.

2023

19. For developmental assessment of a baby, grasp is best assessed by offering the child

(a) a red ring
(b) a red cube
(c) red pellets
(d) multicoloured pellets

2023

20. In case of a child with an acute poisoning by ingestion, activated charcoal may be used in which one of the following situations?

(a) Iron ingestion
(b) Anti epileptic ingestion
(c) Corrosive ingestion
(d) Lithium ingestion

2023

21. Which of the following genetic causes are commonly associated with autism spectrum disorders?

1. Angelman syndrome
2. Fragile X syndrome
3. Tuberous sclerosis
4. Williams syndrome

Select the correct answer using the code given below.

(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2023

22. To reduce the risk of neural tube defects in the baby, which of the following are recommended?

(a) Folate supplements, from one month before conception to three months after
(b) Folate supplements, from confirmation of pregnancy to the end of first trimester
(c) Zinc supplements, from one month before conception to three months after
(d) Zinc supplements, from confirmation of pregnancy to the end of first trimester

2023

23. Vaccine-associated poliomyelitis is chiefly seen with which of the following strains of oral poliovirus?

(a) OPV 1 only
(b) OPV 2
(c) OPV 3 only
(d) Both OPV 1 and OPV 3

2023

24. Which one of the following is categorized as a specific learning disability?

(a) Dysgraphia
(b) Dystonia
(c) Dysthymia
(d) Dysphoria

Click Here to Buy book on Amazon

doses (600 mg rifampicin, 100 mg dapsone) are more typical for adults.

421. (a) Haemophilus ducreyi
Chancroid is a sexually transmitted infection characterized by a painful genital ulcer and tender suppurative inguinal adenopathy. It is caused by the Gram-negative bacillus Haemophilus ducreyi. Donovanosis (or granuloma inguinale) is caused by Klebsiella granulomatis (formerly Donovania granulomatis), while Chlamydia trachomatis is implicated in lymphogranuloma venereum (LGV) and other chlamydial infections.

422. (c) 1–2 days before the rashes appear
Koplik's spots—small white papules on an erythematous base inside the cheeks—are pathognomonic of measles. They typically appear near the end of the prodromal phase, around 1–2 days before the characteristic measles rash begins. They do not coincide exactly with fever onset (which occurs even earlier), nor do they appear simultaneously with the rash. Hence (c) is most accurate.

423. (b) HBsAg, HBeAg, Anti-HBc, Anti-HBe
When someone acquires hepatitis B, HBsAg (Hepatitis B surface antigen) appears first, indicating active infection. Next, HBeAg (secretory protein) signifies high infectivity. Anti-HBc (antibody to hepatitis B core) emerges as part of the immune response; initially IgM, then IgG. Anti-HBe typically arises later, implying reduced viral replication. Eventually, with successful clearance, HBsAg disappears and anti-HBs develops (not listed here but confers immunity). Thus the usual order is HBsAg → HBeAg → Anti-HBc → Anti-HBe.

424. (c) Leucocytosis
Most common acute food poisonings (especially if toxin-mediated, like staphylococcal or Bacillus cereus) present rapidly with prominent vomiting or diarrhea, and sometimes mild fever (high skin temperature"). Tenesmus can occur if the pathogen involves the lower bowel, but frank leucocytosis is less typical in quick-onset, preformed toxin–driven scenarios. Significant elevations in white cells usually accompany invasive bacterial dysentery or prolonged infections; that's not the classic pattern in rapid-onset acute food poisoning" from preformed toxins.

425. (d) tuberculoma"
Langhans-type giant cells are typically found in granulomatous inflammation associated with tuberculosis (TB). These giant cells have a horseshoe arrangement of nuclei around the periphery, reflecting a specific type of granuloma formation. While foreign-body giant cells are also multinucleated, they usually show nuclei scattered haphazardly rather than in a horseshoe pattern. Lymphomas and typhoid lesions do not demonstrate these characteristic Langhans-type cells. Thus, their presence is classically diagnostic of tubercular granulomas, including tuberculomas.

426. (d) vomiting"
PAIR (Puncture, Aspiration, Injection, Re-aspiration) therapy for hepatic hydatid cyst involves puncturing the cyst and injecting a scolicidal agent, which can trigger significant allergic or anaphylactic reactions if fluid leaks into the peritoneal cavity. Typical anaphylaxis features include urticaria (hives), hypotension (shock), and possible severe systemic reactions. Although nausea might occur, pronounced vomiting is not classically listed among the prime complications associated with hydatid fluid spillage. Anaphylactic shock manifestations more typically revolve around rash, hypotension, and respiratory compromise.

427. (a) A B C D → 3 4 1 2
Viral hepatitis (A) is caused by hepatitis viruses (A, B, C, etc.) → 3
1. Amoebic liver abscess (B) is produced by Entamoeba histolytica → 4
2. Ascending cholangitis (C) typically involves infection by enteric bacteria such as E. coli → 1
3. Hydatid liver disease (D) is caused by Echinococcus granulosus → 2

Hence the correct matching is 3, 4, 1, 2 in that order.

428. (b) Cytomegalovirus"

Downloaded from www.pdf.tube

CHAPTER 03

PAEDIATRICS

NODIA

1. Which one of the following statements is correct regarding physiology of breast feeding ?
(a) Prolactin is responsible for ejection of milk from the glands.
(b) Night feeding is important for maintaining prolactin reflex.
(c) Oxytocin is responsible for milk secretion by the alveolar epithelial cells.
(d) Oxytocin is secreted by the anterior pituitary.

2024

2. Which one of the following fine motor milestones will appear ahead of others ?
(a) Copies a cross
(b) Copies a circle
(c) Draws a circle
(d) Draws a cross

2024

3. In case of hypertensive emergency in a child, blood pressure should be reduced by up to :
(a) 10% over the first 8 hours
(b) 15% over the first 8 hours
(c) 10% in the first hour
(d) 15% in the first hour

2024

4. At what cut-off respiratory rate will you consider 'fast breathing' in a 2-year-old child ?
(a) $\geq$ 60 per minute
(b) $\geq$ 50 per minute
(c) $\geq$ 40 per minute
(d) $\geq$ 30 per minute

2024

5. Which of the following statements are correct regarding the fluid management of pediatric inpatients with burn injuries ?
1. The Parkland formula estimates the amount of fluid to be replaced over 24 hours.
2. Volume of fluid (mL) = 4 mL $\times$ Weight (kg) $\times$ Total body surface area burn (%).
3. Additional maintenance fluid therapy is also to be given to the child.
4. Half of the resuscitation volume should be given over 6 hours and the remaining half over the next 18 hours.

Select the answer using code given below :
(a) 1, 2 and 4
(b) 1, 2 and 3
(c) 1, 3 and 4
(d) 2, 3 and 4

2024

6. The risk of Down syndrome is 100% in the offspring, if :
(a) Mother only is the carrier of balanced translocation
(b) Father only is the carrier of balanced translocation
(c) Both parents are carriers of balanced translocation
(d) Either parent is a carrier of translocation between two chromosome 21

2024

7. Which of the following are examples of genomic imprinting ?
1. Angelman syndrome
2. Williams syndrome
3. Prader-Willi syndrome
4. DiGeorge syndrome

Select the correct answer using the code given below :
(a) 1 and 3
(b) 1 and 2
(c) 2 and 3
(d) 2 and 4

2024

4. Soft ticks (Ornithodoros species) are notorious for relapsing fever (Borrelia).

436. (b) Exotoxins fixed to motor nerve endplates
In tetanus, Clostridium tetani produces tetanospasmin, a potent exotoxin. It travels retrogradely along motor neurons to the spinal cord, but key to its clinical manifestations is blocking inhibitory interneurons, leading to unopposed muscle contraction/spasm. This toxin is not a circulating endotoxin; rather, it binds near neuromuscular junctions and central inhibitory synapses.

437. (a) Lepromin test is strongly positive in tuberculoid leprosy
In tuberculoid leprosy, the patient has strong cell-mediated immunity to Mycobacterium leprae, so the lepromin test (an intradermal test) usually becomes strongly positive. In lepromatous leprosy it is typically negative. The test can be influenced by prior BCG vaccination. It is a prognostic or immunologic test, not used definitively for diagnosis. Typically, reading for the Mitsuda reaction occurs at 3–4 weeks, not within 24 hours.

438. (c) Both 1 and 2
Thiamine (vitamin B_1) deficiency blocks the oxidative decarboxylation of pyruvate (and other ketoacids), causing an accumulation of pyruvic and lactic acids. Riboflavin (vitamin B_2) is needed for the activation of vitamin B_6 (pyridoxine); deficiency in riboflavin can impair normal pyridoxine utilization.

****

Click Here to Buy book on Amazon

1 is correct. However, killed or inactivated vaccines typically require multiple doses or boosters (e.g., inactivated polio or hepatitis A vaccines) to achieve and maintain adequate immunity, while a single dose of a live vaccine often confers sustained immunity. Statement 2 is therefore the opposite of the usual practice, making it incorrect.

400. (d) 1, 2 and 3
Annual influenza vaccination is routinely advised for high-risk individuals: the elderly (often 65+ years), those with chronic medical conditions (e.g. cardiac or respiratory illness), and immuno compromised persons—including HIV-infected patients. While some regions do recommend broader coverage, targeting the entire general population" is often not mandated everywhere due to cost-effectiveness considerations. Therefore, (d) captures the three groups most consistently advised to receive influenza immunization.

401. (a) It is a zoonosis
Hydatid disease (Echinococcus granulosus infection) is a cestode (tapeworm) parasitic infection involving animals (often sheep) as intermediate hosts and dogs as definitive hosts. Humans become accidental" intermediate hosts by ingesting eggs from infected dog feces, making it a classic zoonosis. It is relatively more common, not rare, in sheep-rearing regions. Additionally, it is not protozoal; it is a helminthic infection. Man is not the definitive host (dogs are).

402. (a) Parkinsonism
Cord blood stem cells are well established in treating hematological conditions like leukemia and certain immunodeficiencies. They are also under investigation for potential application in various metabolic disorders (including some forms of diabetes) and possibly regenerative medicine. However, routine or well-validated treatment protocols for neurodegenerative conditions like Parkinson's disease do not yet exist using umbilical cord blood. Osteoporosis likewise has no widely accepted cord-blood-based therapy, but among the choices given, Parkinsonism is the clearer except" for recognized standard usage.

403. (d) Steptococcus pyogenes
The term flesh-eating bug" usually refers to Streptococcus pyogenes (Group A Streptococcus), which is a common cause of necrotizing fasciitis. This bacterium produces toxins and enzymes that facilitate the rapid destruction of soft tissue and fascia, resulting in severe, rapidly progressive infections. While other organisms can occasionally cause a similar clinical picture, flesh-eating disease" is most often linked to Streptococcus pyogenes in surgical and medical terminology. Early diagnosis and aggressive surgical and medical intervention are essential.

404. (a) Clostridial infection
Crepitus in the tissue, with a rapidly spreading necrosis (subdermal spread of gangrene"), strongly points to gas-forming bacteria such as Clostridium perfringens. Diabetic patients are particularly prone to severe soft tissue infections. Clostridial infections (gas gangrene) present with intense pain, crepitus due to gas production, and rapid tissue destruction. Meleney's gangrene is also necrotizing but tends to be more subacute, while abdominal wall cellulitis and intra-peritoneal collections typically do not cause extensive crepitus in the wound area.

NODIA

405. (b) B.C.G.
Bacillus Calmette–Guérin (BCG) is a live attenuated vaccine derived from Mycobacterium bovis. It retains enough antigenicity to stimulate an immune response without causing typical disease in immunocompetent hosts. DPT contains toxoids (not live organisms), Hepatitis B vaccine is a subunit vaccine, and TAB (for typhoid) is generally inactivated. Thus, BCG is the only live attenuated example among these choices.

406. (d) 2 and 4 only
Rubella (German measles) typically has an incubation of about 2–3 weeks (2) and is classically associated with posterior auricular

8. If a baby does not begin breathing in response to tactile stimulation, then the baby is assumed to be in :
(a) Primary apnea
(b) Secondary apnea
(c) Tertiary apnea
(d) Cardiorespiratory arrest

2024

9. Consider the following conditions :

	Response to tactile stimulation	**Heart Rate**	**Blood Pressure**	**Tone**
A	Yes	Normal	Normal	Normal
B	Yes	Falling	Normal	Decreasing
C	No	Falling	Falling	Decreasing
D	No	Rising	Normal	Normal

Primary apnea in a neonate is characterized by which one of the above conditions ?
(a) A
(b) B
(c) C
(d) D

2024

10. Consider the following statements about human breast milk :
1. 75% of breast milk content is water.
2. Breast milk is poor in taurine and cysteine.
3. Breast milk is particularly rich in omega 2 and omega 6 fatty acids.
4. High lactose content of breast milk helps in absorption of calcium.

Which of the statements given above are correct ?
(a) 1, 3 and 4
(b) 1 and 4 only
(c) 1 and 3 only
(d) 3 and 4 only

2024

11. Which of the following are signs of good attachment during breast feeding ?
1. The baby's nose is at the level of the nipple.
2. The baby's mouth is wide open.
3. The baby's chin touches the breast.
4. The baby's lower lip is everted.

Select the correct answer using the code given below :
(a) 1, 2 and 3
(b) 2, 3 and 4
(c) 1, 3 and 4
(d) 1, 2 and 4

2024

12. A 6-year-old boy has recently started telling his full name, although he cannot recite a poem. His Developmental Quotient (DQ) in the language sphere is :
(a) 33%
(b) 50%
(c) 66%
(d) 83%

2024

13. Consider the following statements :
1. Hepatitis B vaccine has reduced efficacy, if administered intramuscularly.
2. The maximum time allowed between reconstitution of MMR vaccine and use is 30 minutes.
3. Maternal antibodies do not interfere with cellular immune response to BCG vaccine.
4. DTwP is preferred to DTaP for primary immunization in most children.

Which of the statements given above are correct ?
(a) 1 and 2
(b) 1 and 3
(c) 2 and 4
(d) 3 and 4

2024

14. Rotavirus vaccination is avoided during an episode of diarrhoea because :
(a) It might compromise uptake of vaccine
(b) It could trigger an episode of intussusception
(c) Rotavirus vaccine is a live vaccine and hence may cause rotavirus diarrhoea and worsen the diarrhoeal episode
(d) Vomiting is a significant adverse effect of Rotavirus vaccine

2024

15. Which of the following are the five essential components of nurturing care?
1. Health
2. Nutrition
3. Breast feeding

Downloaded from www.pdf.tube

Most antibiotics interfere with microbial processes linked to growth and replication (e.g., cell wall synthesis, protein synthesis). Consequently, rapidly dividing bacteria are usually more susceptible. Although some immune-enhancing processes (e.g., opsonization, complement activation) can be assisted indirectly, the key mechanism is that antibiotics disrupt bacterial growth or replication. Statements regarding direct enhancement of phagocyte uptake, intracellular killing, or complement activation are not general principles for typical antibiotic action.

414. (d) Pneumocystis carinii (now Pneumocystis jirovecii)
In untreated or advanced HIV/AIDS with low CD4 counts, Pneumocystis pneumonia (PCP), caused by Pneumocystis jirovecii (formerly Pneumocystis carinii), is one of the most frequent life-threatening opportunistic infections. Although atypical mycobacteria (MAC), certain bacteria (e.g., H. influenzae), and fungi can also be problematic, PCP is historically recognized as the single most common and classic opportunistic infection in AIDS patients.

415. (a) Lead poisoning
Wrist drop (inability to extend the wrist) is often due to radial nerve palsy or dysfunction of the extensor muscles in the forearm. Chronic lead exposure can damage the motor neurons innervating these muscles, leading to the classic wrist drop. Diabetes mellitus, alcoholism, or beriberi can cause neuropathies, but they are more likely to present with distal sensory loss or mixed motor-sensory deficits rather than the classic radial nerve–type palsy typical in lead poisoning.

416. (b) Calymmatobacterium granulomatis
Donovaniasis (also called granuloma inguinale) is caused by Calymmatobacterium granulomatis (now referred to as Klebsiella granulomatis). It presents with painless, progressive ulcerative lesions on the genitals without significant lymphadenopathy. Haemophilus ducreyi causes chancroid, herpes simplex virus causes herpes genitalis, and Chlamydia trachomatis has multiple serotypes causing different clinical syndromes, but not Donovaniasis.

417. (b) 2-3 weeks
Mumps, caused by the paramyxovirus, typically has an incubation period ranging from about 16 to 18 days on average (roughly 2–3 weeks). Patients then often develop parotid gland swelling, fever, and malaise. More prolonged or very short incubation times are less characteristic for mumps.

418. (c) Vitamin D
Craniotabes—ping-pong-like depressibility of the skull bones—appears when the cranial bones are soft and thin, often in rickets (vitamin D deficiency) for infants and young children. It can occasionally be noted in other conditions (e.g., syphilis), but rickets is the classic nutritional cause. Vitamins A, C, or K deficiencies lead to different clinical manifestations (e.g., night blindness, scurvy, bleeding tendencies) rather than craniotabes.

419. (c) Yellow Fever Vaccine
The yellow fever vaccine is a classic example of a live attenuated viral vaccine. Hepatitis B vaccine is a recombinant subunit vaccine, Salk polio vaccine (IPV) is inactivated, and Japanese Encephalitis vaccines can be inactivated or (in some newer forms) live-attenuated—but traditionally, in many programs, it is given as an inactivated vaccine. The well-known, widely used YF vaccine (17D strain) is definitely a live attenuated preparation.

420. (a) Rifampicin 450 mg once a month (under supervision) + Dapsone 50 mg daily (self administered) + Clofazimine 150 mg once a month (under supervision) and 50 mg every alternate day
The WHO-recommended multibacillary (MB) leprosy regimen for children aged 10–14 years uses slightly lower drug dosages than adult regimens but still includes the three key anti-leprosy drugs (rifampicin, dapsone, clofazimine). Option (a) correctly provides the standard monthly supervised doses and daily (or alternate-day) self-administered doses in appropriate pediatric amounts. The higher

NODIA

2023

25. A baby is delivered at 34 weeks' gestation and found to be apneic at birth. After performing the initial steps of resuscitation, the baby is still apneic. The next step should be
(a) tactile stimulation
(b) positive pressure ventilation using 30% oxygen
(c) positive pressure ventilation using 100% oxygen
(d) chest compression

2023

26. A child requires detailed developmental evaluation if the developmental quotient is below
(a) 70%
(b) 75%
(c) 80%
(d) 85%

2023

27. The upper limit of age for attainment of visual fixation or following is
(a) birth
(b) 1 month
(c) 2 months
(d) 3 months

2023

28. A child develops 'stranger anxiety' at
(a) 2–3 months
(b) 4–5 months
(c) 6–7 months
(d) 8–9 months

2023

29. Consider the following statements with respect to developmental milestones at 9 months of age :
1. At this age, child develops immature pincer grasp.
2. At this age, child can say bisyllables (mama, dada, etc.).
3. At this age, child can wave bye-bye.

Which of the statements given above are correct?
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2023

30. What are the upper age limits by which a child should start walking alone, and be able to speak single words?
(a) 12 months, 15 months respectively
(b) 15 months, 18 months respectively
(c) 15 months, 15 months respectively
(d) 18 months, 18 months respectively

2023

31. A child presents to the emergency following ingestion of around 20 mL of kerosene oil about 40 minutes back. The child appears stable. Which one of the following measures should be done for the management of the child?
(a) Gastric lavage
(b) Oxygen therapy
(c) Intravenous steroids
(d) Radiography

2023

32. The event related to vaccination which can be contraindication for the next vaccination of similar/identical type is
(a) syncope following MMR vaccine
(b) encephalopathy following DPT vaccine
(c) abscess at injection site after DPT vaccine
(d) gastroenteritis following MMR vaccine

2023

33. Which of the following events could be caused or precipitated by an active component of vaccine?
1. Anaphylaxis after measles vaccine
2. Encephalopathy after DPT vaccine
3. Adenitis following BCG vaccine
4. Gastroenteritis following MMR vaccine

Select the correct answer using the code given below.

2023

34. Which one of the following can be used for developmental screening for use in community to identify children (aged 0–6 years) with developmental delay?
(a) Revised Denver Development Screening Test (Denver II)
(b) Ages and Stages Questionnaire (ASQ-3)
(c) Phatak's Baroda Development Screening Test
(d) Trivandrum Development Screening Chart

2023

35. According to the WHO clinical criteria, which of the following clinical signs are indicative of

Click Here to Buy book on Amazon

reveals peaked T waves, prolonged PR interval and widened QRS complexes. Which of the following treatments should be administered immediately?
(a) Sodium bicarbonate infusion
(b) Intravenous bolus procainamide
(c) Insulin infusion
(d) Intravenous magnesium sulphate

2018

116. A child with Acute Lymphoblastic Leukemia is started on chemotherapy. After 2 days he develops vomiting, decreased urine output abdominal pain and tetanic spasms. The ECG reveals QTc prolongation. Which one of the following therapies will be detrimental to his management?
(a) Normal maintenance intravenous fluid
(b) Oral phosphate binders
(c) Intravenous rasburicase
(d) None of these

2018

117. Which of the following treatment modalities is NOT recommended for worsening respiratory distress in a child suspected to be suffering from acute croup?
(a) Sedation
(b) Intravenous antibiotics
(c) Nebulised racemic epinephrine
(d) Intramuscular dexamethasone

2018

118. Which of the following developmental skills will you expect a child to have acquired by 9 months?
(a) Cruising around the furniture
(b) Mature pincer grasp
(c) Waves 'bye-bye'
(d) Refers to mother as 'ma-ma'

2018

119. Which of the following is physiological in a term neonate?
(a) Hypotonia
(b) Erythema toxicum
(c) Jaundice at 20 hours of life
(d) Direct serum bilirubin level = 3.0 mg/dL

2018

120. A preterm neonate undergoes the initial steps of resuscitation. The clinician observes that the baby is breathing, has a heart rate of 80/minute and the baby is pink. What will be the next immediate step in management?
(a) Administering intravenous epinephrine
(b) Chest compressions
(c) Positive pressure ventilation
(d) Supplemental oxygen

2018

121. A child is able to copy a triangle, names 4 colours, dresses and undresses easily and is able to skip. What is the likely age of this child?
(a) 30 months
(b) 36 months
(c) 48 months
(d) 60 months

2018

122. Which of the following will be considered to be a 'RED FLAG' in child development?
(a) No vocalization by 4 months
(b) Unable to sit without support by 10 months
(c) Unable to walk independently by 15 months
(d) Unable to speak a single word with meaning by 15 months

2018

123. Gastric lavage is contraindicated in which of the following?
1. Corrosive poisoning
2. Organophosphorus poisoning
3. Iron intoxication
4. Turpentine oil ingestion

Select the correct answer using the codes given below:
(a) 1 and 2
(b) 2 and 3
(c) 3 and 4
(d) 4 and 1

2018

124. A 10-year old girl is brought to the emergency following a road traffic accident. The child is comatose with GCS score of 4. She is hypertensive, has bradycardia and extensor posturing. CT imaging reveals comminuted skull fractures and intra parenchymal hemorrhage. The initial management should include all of the following measures EXCEPT:
(a) Head of bed elevation
(b) Mechanical ventilation
(c) Intravenous dexamethasone
(d) Hypertonic saline administration

2018

NODIA

STUDYING FROM PDFs?

THINK AGAIN.

If you are studying only from PDFs,
you are wasting valuable time.

Research shows that learning from

PRINTED BOOKS has up to

4× HIGHER RETENTION

than studying from screens.

PRINT BOOK = BETTER MEMORY

PDF = LOWER RETENTION

Those who study from **PRINTED BOOKS**
move **AHEAD.**

Others are left **BEHIND**
in competition.

In competitive exams,
being average is not enough.

STAY ONE STEP AHEAD.

(a) The concentration of lactose is 5 g/dL
(b) The protein content is higher than that in animal milk
(c) Human milk does not contain taurine and cysteine like animal milk and formula milk
(d) Human milk contains omega 2 and omega 6 (very long chain) fatty acids

2022

46. Which of the following are age-appropriate language milestones in a normally developing 2 year-old child?
1. Vocabulary of 50–100 words
2. Uses pronouns
3. Occasional repeating of words
4. Stating his name when asked

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

47. Which of the following tools are used for developmental screening?
1. Denver-II
2. Ages and Stages Questionnaire
3. Parents Evaluation of Developmental Status
4. Bayley Scale for Infant and Toddler Development

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

48. Which one of the following statements is correct about intra-dermal fractional Inactivated Polio Vaccine (fIPV) with respect to intramuscular (I/M) IPV?
(a) fIPV is one-tenth of the I/M dose of IPV
(b) fIPV is one-fifth of the I/M dose of IPV
(c) fIPV is half of the I/M dose of IPV
(d) fIPV is three-fourth of the I/M dose of IPV

2022

49. Which one of the following statements is correct regarding the Government of India program 'Home-based care of the young child'?
(a) It was started in 2014
(b) The grass roots health worker is the Anganwadi worker
(c) The grass roots health worker makes 6 home visits
(d) The infant is monitored from 3 months to 15 months of age

2022

NODIA

50. Which one of the following is a 'Danger Sign' for a newborn baby?
(a) Temperature between 36.0 °C and 36.5 °C
(b) Respiratory rate more than 60/min
(c) Heart rate of 120/min
(d) Weight loss of 8% within first week of life

2022

51. The codes given below represent specific types of permanent teeth:
1. Central and lateral incisors
2. Canines
3. Premolars
4. Molars

The eruption of which of the following combinations will be close to menarche in girls?
(a) 1 and 2
(b) 2 and 3
(c) 3 and 4
(d) 1 and 4

2022

52. A 4 year old child is brought with a history of ingestion of 1 g of paracetamol two hours back. What should be the initial management?
(a) Induced vomiting
(b) Gastric lavage
(c) Oral N-acetyl cysteine
(d) Alkaline diuresis

2022

53. A 7 year old child is brought to the emergency with seizures and drowsiness. The child had been receiving some drugs for fever for the past two days. The child is found to be cyanosed with an oxygen saturation of 40% and unresponsive to oxygen therapy. Blood gas analysis reveals a normal PaO_2. Which drug intake may have caused the above condition?
(a) Chloroquine
(b) Amoxicillin-Clavulanic acid
(c) Paracetamol
(d) Mefenamic acid

2022

74. Fractional inactivated intradermal poliovirus vaccine is given at what ages in the National Immunization Schedule?
(a) 6 weeks and 10 weeks
(b) 6 weeks and 14 weeks
(c) 10 weeks and 14 weeks
(d) 6 weeks, 10 weeks and 14 weeks
2021

75. Protective efficacy of Varicella vaccine when used for post-exposure prophylaxis (given within 72 hours of contact) is approximately:
(a) 60%
(b) 70%
(c) 80%
(d) 90%
2021

76. A 10-year-old child presents with difficulty in word recognition, word decoding abilities, difficulty in spelling with normal listening comprehension. The most likely diagnosis is :
(a) Dyslexia
(b) Autism spectrum disorder
(c) Rett syndrome
(d) Attention deficit hyperactivity disorder
2021

77. Which of the following is the best strategy to use in the management of temper tantrums in a 3-year-old boy?
(a) Giving in to the demands
(b) Physical punishment
(c) Scolding
(d) 'Time out'
2021

78. Which one of the following diseases is covered under Rashtriya Bal Swasthya Karyakram (RBSK)?
(a) Rheumatic heart disease
(b) Community acquired pneumonia
(c) Systemic onset juvenile idiopathic arthritis
(d) Nephrotic syndrome
2021

79. An 8 year old child has consumed a few tablets of a drug that were being taken by his mother on a regular basis. Following this the child develops gastric necrosis, acidosis, shock and hepatic necrosis. Which is the most likely drug?
(a) Multivitamins
(b) Calcium carbonate
(c) Folic acid
(d) Iron
2020

80. A newborn weighing 1.5 kg at birth presents at 6 hours of age with lethargy, weak and high pitched cry and difficulty in feeding. What is the next step in management?
(a) Estimation of blood sugar
(b) Estimation of serum calcium
(c) Supplementary oxygen
(d) Bedside electrocardiogram
2020

81. In a child with acute organophosphorus poisoning, which one of the following drugs will act as anti-sialogogue and peripheral parasympatholytic agent?
(a) Carbamates
(b) Atropine
(c) Benzodiazepine
(d) Pralidoxime
2020

82. A 6-year old child needs to undergo a central Catheter placement for total parenteral nutrition. The procedure is likely to evoke pain and anxiety. Which of the following is the most appropriate drug for sedation and analgesia in this child?
(a) Chloral hydrate
(b) Midazolam
(c) Propofol
(d) Ketamine
2020

83. Which one of the following is the drug of choice in a child presenting with supraventricular tachycardia?
(a) Atropine
(b) Lidocaine
(c) Adenosine
(d) Nalaxone
2020

84. Which one of the following is a sign of good attachment during breast feeding?
(a) The baby's nose is at the level of the nipple
(b) The baby's chin touches the breast
(c) Most of the nipple is in the mouth and the lower areola is visible
(d) The baby's lower lip is inverted
2020

Downloaded from www.pdf.tube

(a) Anorectal malformation
(b) Diaphragmatic hernia
(c) Arnold Chiari malformation
(d) Tracheoesophageal fistula

2021

64. An infant has just started to watch his mother intently when she talks to him. He has not yet started smiling back. What is the approximate age of the child?
(a) 4 weeks
(b) 6 weeks
(c) 8 weeks
(d) 12 weeks

2021

65. A child demonstrates a mature pincer grasp and is able to build a tower of maximum 6 blocks and can make vertical and circular strokes with pencil. His developmental age is around:
(a) 12 months
(b) 18 months
(c) 24 months
(d) 36 months

2021

66. A typically developing girl is able to creep upstairs, and builds a tower of 2 blocks. Which of the following skills should she also display?
(a) Scribbling
(b) Running
(c) Speaking at least 10 words
(d) Exploring drawers

2021

67. A child can ride a tricycle, hop on one foot but cannot skip. He uses alternate feet while going downstairs. Which one of the following motor skills should he be able to perform at this developmental level?
(a) Copy a triangle
(b) Copy a cross
(c) Build a gate with blocks
(d) Copy a rectangle

2021

68. Which one of the following skills is a normally developing 2-year-old child unable to perform?
(a) Unscrewing a lid
(b) Turning a door knob
(c) Building a vertical tower of 6 blocks
(d) Copying a circle

2021

NODIA

69. Which one of the following statements is age-appropriate for a normally developing 4-month-old infant?
(a) The infant can bring his hands to the midline.
(b) The infant has still not attained partial head control.
(c) The infant has started to reach out with one hand.
(d) The infant has started making monosyllabic sounds like 'da' or 'pa'.

2021

70. Which one of the following is used to estimate the surface area of burn injuries in children less than 15 years of age?
(a) Berkow body surface area chart
(b) Rule of Nines
(c) Lund and Browder chart
(d) Parkland formula

2021

71. A 4-year-old boy presents with ingestion of many tablets of salicylate. Which one of the following complications is he likely to develop?
(a) Hyperkalemia
(b) Rhabdomyolysis
(c) Prolonged QRS complex in ECG
(d) Metabolic acidosis

2021

72. A 3-year-old boy presents with parental concerns regarding delayed development, especially speech. On observation, the clinician notes decreased eye contact, inattentiveness, unresponsive to being called, and toe walking. What is the most likely diagnosis?
(a) Attention Deficit Hyperactivity Disorder
(b) Autism Spectrum Disorder
(c) Cerebral Palsy
(d) Social Communication Disorder

2021

73. Atomoxetine is prescribed to children with Autism Spectrum Disorder to control symptoms of:
(a) Anxiety
(b) Sleep disturbances
(c) Hyperactivity
(d) Repetitive behaviour

2021

54. Autism Spectrum Disorder is characterised by which of the following?
1. Onset before 3 years of age
2. Impaired verbal and gestural communication
3. Stereotypic and restrictive behavioral patterns
4. Tangential speech

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

55. Which vaccines are stored in the top rack of the main refrigerator compartment at temperature of 4–10 °C?
(a) DPT, Hepatitis B, Measles, MMR vaccines
(b) DPT, TT, Hepatitis A vaccine
(c) BCG, DPT and Typhoid
(d) BCG, Measles and MMR vaccines

2022

56. Identification of '4 Ds' is a key element of which National Health Programme?
(a) IMNCI (Integrated Management of Childhood and Neonatal Illness)
(b) ICDS (Integrated Child Development Scheme)
(c) RBSK (Rashtriya Bal Swasthya Karyakram)
(d) JSSK (Janani Shishu Suraksha Karyakram)

2022

57. Cardiac outflow tract defect, thymic hypoplasia, cleft palate and hypocalcemia are clinical features of which gene disorder?
(a) Angelman syndrome
(b) Williams syndrome
(c) Smith-Magenis syndrome
(d) DiGeorge syndrome

2021

58. A child presents with headache and vomiting in the emergency room following a fall from the bed. Which one of the following treatment modalities is not recommended in the emergency room?
(a) Intravenous mannitol administration
(b) Administration of hypertonic (3%) solution
(c) Elevate the head end by 30 degrees
(d) Therapeutic lumbar puncture

2021

59. The recommended ratio for chest compression to breaths administered by a single rescuer during resuscitation of a child in cardiac arrest is:
(a) 15 : 2
(b) 30 : 2
(c) 14 : 1
(d) 7 : 1

2021

60. A 4-year-old comatose child is assessed by the Modified Glasgow Coma Scale. Which of the following is the correct interpretation of the score given as E2V3M2 for the best eye opening response, best verbal response and best motor response respectively?
(a) Eye opening to speech, makes incomprehensible sounds and abnormal flexion
(b) Eye opening to speech, inappropriate words and abnormal flexion
(c) Eye opening to pain, moans to pain and abnormal flexion
(d) Eye opening to pain, cries to pain and extension to pain

2021

61. What will a baby with mild hypothermia feel like, when touched by the back of the hand of an examiner?
(a) The entire body will feel cold.
(b) The abdomen and feet will be warm, but hands will be cold.
(c) The abdomen will be warm, but the hands and feet will be cold.
(d) The abdomen, feet and hands will all feel cold.

2021

62. A 6-week-old infant presents with unconjugated hyperbilirubinemia. Which of the following could be a likely diagnosis?
(a) Dubin Johnson syndrome
(b) Galactosemia
(c) Rotor syndrome
(d) Congenital hypothyroidism

2021

63. A mother with polyhydramnios gives birth to a term newborn infant who develops choking and cyanosis on feeding soon after birth. There is excessive drooling and frothing from the mouth. Most likely diagnosis is:

Click Here to Buy book on Amazon

85. Which one of the following signs is NOT included as an indicator of a vigorous baby immediately after delivery of an infant born through meconium strained liquor?
(a) Pink colour
(b) Strong respiratory efforts
(c) Good muscle tone
(d) Active movements of the baby

2020

86. All are true for a Cephalhematoma in a newborn EXCEPT:
(a) It is located over the parietal bones in the subcutaneous plane
(b) It may be associated with hyperbilirubinemia
(c) It increases in size in the first 12–24 hours
(d) It can take 3–6 weeks to resolve

2020

87. Which of the following sick neonates can be started on 'Minimal Enteral Feeding', if hemodynamically stable?
(a) Septic neonate with sclerema
(b) Neonate with necrotizing enterocolitis (NEC)
(c) Neonate on mechanical ventilation
(d) Symptomatic hypo glycaemia

2020

88. Which one of the following drugs is contraindicated in a mother who is breast feeding her infant?
(a) Bromocriptine
(b) Chlorpromazine
(c) Acyclovir
(d) Morphine

2020

89. A term neonate presents with tachypnea on day 1 after birth. The chest X-ray reveals hyper expanded lung fields, prominent vascular markings, and prominent interlobar fissure. Which of the following is the most probable diagnosis?
(a) Congenital lobar emphysema
(b) Diaphragmatic hernia
(c) Transient tachypnea of the newborn
(d) Tracheoesophageal fistula

2020

90. A pre-school boy can go upstairs on alternate feet and has also started copying a circle. How many blocks should he be able to build a tower with, without toppling over?
(a) 5
(b) 7
(c) 9
(d) More than 10

2020

91. A 3-year old child develops severe respiratory distress after inhalation of fumes arising from burning plastic. The child is started on supportive ventilation. Which one of the following antidotes needs to be given?
(a) Hydroxocobalamin
(b) Amylinitrate
(c) Sodium nitrite
(d) N-acetyl cysteine

2020

NODIA

92. A child has an incurving of the little finger. What is this condition known as?
(a) Camptodactyly
(b) Brachydactyly
(c) Partial cutaneous syndactyly
(d) Clinodactyly

2020

93. A 4-week old infant presents with repeated episodes of non-bilious vomiting since 7 days. The infant seems active and hungry after the vomiting. Examination reveals an olive-shaped mass in the epigastrium. Which metabolic abnormality is expected in this infant?
(a) Hyperchloremia
(b) Metabolic alkalosis
(c) Hyperkalemia
(d) Hyponatramia

2020

94. Which one of the following is the correct dose and route of administration of hepatitis B vaccine in children?
(a) 0.5 mL dose with 10 microgram of antigen subcutaneously
(b) 0.5 mL dose with 10 microgram of antigen intramuscularly
(c) 1 mL dose with 5 microgram of antigen subcutaneously
(d) 1 mL dose with 5 microgram of antigen intramuscularly

2020

'severe pneumonia or very severe disease' in children aged 2 months to 5 years?
1. Convulsions
2. Lower chest in drawing
3. Inability to feed
4. Stridor

Select the correct answer using the code given below.

2023

36. An eleven-month-old unionized child comes for immunization. Which vaccines should be given in this visit?
(a) BCG, OPV, DPT and Hepatitis B vaccines
(b) OPV, DPT and MR vaccines only
(c) BCG, DPT and MR vaccines
(d) OPV, DPT, MR and Hepatitis B vaccines

2023

37. Vertical transmission of hepatitis B can be prevented by which of the following interventions?
1. Passive immunization of infant at birth
2. Active immunization of infant at birth
3. Antiviral therapy in third trimester for mother with HBV-DNA level of >2,00,000 IU/mL

Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2022

38. An infant was born at 30 weeks of gestation and weighs 1.2 kg at birth. Which of the following is the recommended initial feeding method?
(a) Intravenous fluids only
(b) Feeding by spoon and katori
(c) Breast feeding
(d) Oro gastric feeding

2022

39. A newborn delivered at 32 weeks gestation is started on spoon feeds after birth. On feeding with spoon, the baby demonstrates some spilling and coughing. What is the next step in management?
(a) Ora gastric or nasogastric tube feeding
(b) Intravenous fluid therapy
(c) Gastrostomy tube feeding
(d) Breast feeding

2022

40. A child speaks bisyllables like Ma-Ma and Ba-Ba. He is able to sit without support, and looks at the source of sound diagonally. His likely age is
(a) 4 months
(b) 6 months
(c) 8 months
(d) 10 months

2022

41. After sustaining a head injury, an 18 month old child displays eye opening only to pain, moans on painful stimuli and withdraws to painful stimuli. What is the modified Glasgow Coma Scale Score in this child?

2022

42. A 3-day old newborn presents with jaundice since birth. Examination reveals pallor and hepatosplenomegaly. The newborn also has a cephalhematoma. Which one of the following is the most important indicator to the diagnosis of pathologic jaundice?
(a) Pallor
(b) Hepatosplenomegaly
(c) Clinical jaundice since birth
(d) Cephalhematoma

2022

43. What is the diagnosis of Autism Spectrum Disorder primarily based upon?
(a) Clinical criteria only
(b) Clinical criteria and genetic studies only
(c) Clinical criteria and MRI brain only
(d) Clinical criteria, genetic studies and MRI brain

2022

44. According to the National AIDS Control Program, which one of the following drugs is given to newborns born to HIV-positive mothers to prevent mother-to-child transmission of HIV infection?
(a) Nevirapine
(b) Stavudine
(c) Indinavir
(d) Ritonavir

2022

45. Which one of the following statements is correct in context of human breast milk?

Downloaded from www.pdf.tube

104. Which of the following manifestations is/are NOT seen in breath holding spells?
(a) Apnea
(b) Tonic clonic movements
(c) Drowsiness after the episode
(d) Pallor

2019

105. Till what age should corrected age be used (rather than chronological age) for the development assessment of babies born preterm?
(a) 6 months
(b) 1 years
(c) 2 years
(d) 2.5 years

2019

106. Which of the following is NOT a maternal risk factor for the development of a neural tube defect?
(a) Insulin dependent Diabetes Mellitus
(b) Exposure to radiation
(c) Intake of Phenytoin
(d) Folate deficiency

2019

107. Trisomy 13 is also known as:
(a) Edward syndrome
(b) Patau syndrome
(c) Turner syndrome
(d) Williams syndrome

2019

108. Which of the following types of tracheoesophageal fistulae is the most common?
(a) The upper part of the esophagus ends blindly and the lower end is connected to the trachea by a fistula
(b) There is no fistulous connection between either the upper or the lower parts of the esophagus and the trachea
(c) The upper part of the esophagus opens into the trachea
(d) Both the upper and lower parts of the esophagus open into the trachea

2019

109. All of the following statements are true about the BCG vaccine EXCEPT:
(a) It has 50–80% protection against miliary and meningeal forms of tuberculosis
(b) It does not protect against other mycobacterial diseases like leprosy
(c) It induces primary cell mediated immunity
(d) There is interference with its effect due to maternal antibodies

2019

110. What type of vaccine is the Rotavirus vaccine?
(a) Live attenuated organism
(b) Killed organism
(c) Toxoid
(d) Subunit vaccine

2019

NODIA

111. What is the risk of recurrence for Down's syndrome when the underlying cause is a translocation inherited from the father?
(a) 1 %
(b) 4–5 %
(c) 10 %
(d) 100 %

2019

112. An 8 month old infant with evolving Cerebral Palsy is diagnosed with the first episode of Urinary Tract Infection. What further radiological evaluation should be planned?
(a) Ultrasound of the abdomen (KUB) only
(b) Ultrasound of the abdomen (KUB) and Micturating Cystourethrogram (MCU) only
(c) Ultrasound of the abdomen (KUB), Micturating Cystourethrogram (MCU) and radionuclide renal scan (99Tc DMSCA scan)
(d) Radionuclide or ultrasound scan (99Tc DMSA scan) followed by MCU (if required)

2019

113. Which one of the following vaccines is NOT included in Mission Indradhanush?
(a) BCG
(b) OPV
(c) DPT
(d) MMR

2019

114. Which of the following drugs is NOT included in the management of Attention Deficit Hyperactivity Disorder (ADHD)?
(a) Amphetamine
(b) Atomoxetine
(c) Methylphenidate
(d) Trientine

2019

115. A 5 year old boy is brought to the Emergency Room following a crushing injury. The ECG

95. Which one of the following statements is correct for approved acellular pertussis vaccine?
(a) It contains at least 3 IU of inactivated pertussis toxin
(b) It contains at least 3 pathogenic pertussis antigens
(c) Its efficacy is superior to the whole cell pertussis vaccine
(d) Presence of non fimbrial protein is a mandatory component

2020

96. Which of the following is recommended in the follow up health visits of a child with Down syndrome?
(a) Growth assessment twice a year in the first year and annually till 5 years
(b) Annual auditory screening from 1 to 5 years
(c) Screening for refractory error if visual impairment is suspected
(d) Annual thyroid function test from birth to 2 years

2020

97. A 12 year old child presents with delayed puberty and delayed bone age. His growth records reveal that he was growing normally till 1 year of age, after which both his height and weight fell to below the third centile for age. Subsequently, he continued to grow below the third centile with normal height velocity. What is the most likely diagnosis?
(a) Familial short stature
(b) Constitutional growth delay
(c) Growth hormone deficiency
(d) Skeletal dysplasia

2020

98. According to the 'Integrated Management of Neonatal and Childhood Illnesses' (IMNCI) classification of young infants up to 2 months, which one of the following signs is NOT included in 'Possible Serious Bacterial Infection'?
(a) Fast breathing (50 breaths or more per minute)
(b) Severe chest in drawing
(c) Axillary temperature less than 36.5 °C
(d) Movement only when stimulated or no movement at all

2020

99. During Neonatal Resuscitation, chest compressions should be discontinued once the heart rate is:
(a) ≥60 beats per minute
(b) ≥80 beats per minute
(c) ≥100 beats per minute
(d) Regular on auscultation

2019

100. A 5 day-old neonate is brought with abdominal distention and non-passage of meconium since birth. On per rectal examination, the anal tone is normal and the rectum is empty of faeces. There is rapid expulsion of faeces after the digital examination. Which test will help you to establish the diagnosis?
(a) Rectal Manometry
(b) Barium follow through contrast study
(c) Rectal suction biopsy
(d) Colonoscopy

2019

101. Which of the following advantages is NOT associated with delayed cord clamping in term babies?
(a) Improvement is hematological status
(b) Increased iron levels
(c) Decreased levels of physiological anemia of infancy
(d) Reduction in hyperbilirubinemia

2019

102. A term neonate delivered through meconium stained liquor is found to be having poor respiratory efforts soon after birth. The most appropriate management for this child would be:
(a) Intrapartum sectioning of mouth and nose before delivery of shoulders
(b) Post natal tracheal sectioning
(c) Immediate sectioning of mouth and nose
(d) Initial steps of neonatal resuscitation

2019

103. Which one of the following figures should a five year old developmentally normal child be able to draw?
(a) Rectangle
(b) Triangle
(c) Circle
(d) Cross

2019

Click Here to Buy book on Amazon

125. A 3-year old boy is brought with complaints of staying aloof. He also has delayed speech. Rest of the developmental milestones were attained normally. The most likely diagnosis is:
(a) Selective mutism
(b) Attention deficit hyperactivity disorder
(c) Autism
(d) Phonological disorder

2018

126. A 6-year old boy comes to the immunization clinic having received all vaccines as per schedule till 18 months of age. Which vaccine should be administered now?
(a) DTPw booster
(b) TdaP booster
(c) DT booster
(d) TT booster

2018

127. 'Time-out' strategy is used for management of children having:
(a) Tics
(b) Temper tantrums
(c) Stuttering
(d) Breath holding spells

2018

128. Which of the following is the best mode of management of a newborn born to a mother with Hepatitis B infection?
(a) Hepatitis B Immunoglobulin (HBIG) and Hepatitis B vaccine at birth
(b) 1 and monotherapy with Infection
(c) 1 and monotherapy with Lamivudine
(d) 1 and mono therapy with Adefovir

2018

129. At what age should a lateral neck radiograph be done for a child with Downs syndrome to rule out atlanto-occipital subluxation?
(a) At birth
(b) At 1 year
(c) At 2 years
(d) At 3 years

2018

130. Which X ray will be used to evaluate the bone age (skeletal age) of a term newborn at birth?
(a) Wrist
(b) Shoulder
(c) Knee
(d) Elbow

2018

131. Which one of the following is NOT a component of the '4 Ds' that are the focus of the Rashtriya Bal Suraksha Karyakram (RBSK)?
(a) Deficit
(b) Disease
(c) Deficiency
(d) Developmental delay

2018

132. In which one of the following age groups is the highest rate of drowning observed, worldwide?
(a) Less than 1 year
(b) 1–4 years
(c) 4–10 years
(d) 10–15 years

2018

133. Which of the following is the recommended initial intravenous therapy in a 2-year old child with Severe Acute Malnutrition with Severe Dehydration and Shock?
(a) Ringer Lactate (R) at the rate of 30 mL/kg over first 30 minutes
(b) Half-normal saline (N/2) in 5% dextrose at the rate of 15 mL/kg over first 60 minutes
(c) Normal saline (NS) at the rate of 20 mL/kg over the first 30 minutes
(d) N/5 saline with 5% dextrose at the rate of 30 mL/kg over first 60 minutes

2018

134. What is the definition of 'Cold stress' in a newborn as measured by the axillary temperature?
(a) 35.0 – 35.5 °C
(b) 35.0 – 36.0 °C
(c) 35.5 – 36.5 °C
(d) 36.0 – 36.4 °C

2018

135. A five year old child was diagnosed with nephrotic syndrome, 18 months back. He was treated and successfully went into remission at that time. Following the initial episode, the child has had 3 relapses, each of which was successfully treated with oral prednisolone (60 mg/m^2/day) until remission, followed by 40 mg/m^2 single dose, alternate days for four weeks. What is the diagnosis?
(a) Nephrotic syndrome, infrequent relapses
(b) Nephrotic syndrome, frequent relapses

Downloaded from www.pdf.tube

(d) Positive osmotic fragility test

2016

154. A three year old male child has a poor stream of urine and strains at micturition. After voiding, the bladder is still palpable. The patient should be advised
(a) Abdomen X-ray
(b) Urine examination
(c) Circumcision
(d) Excretory urogram

2016

155. A two year old child has weight less than 3 SD (less than 3 Z score) as per WHO growth chart and mid upper arm circumference less than 11 cm. What is the correct diagnosis for this child?
(a) Acute malnutrition
(b) Chronic malnutrition
(c) Severe acute malnutrition
(d) Moderate acute malnutrition

2016

156. For a three year old male child, the height for age is 82% of the expected for that age and weight for height is 65% of the expected value. The child is labelled as:
(a) Normal
(b) Wasted
(c) Stunted
(d) Wasted and stunted

2016

157. For an early infant diagnosis of HIV infection, which of the following tests is used as per national programme?
(a) ELISA (IgG antibody test)
(b) DNA PCR test
(c) p24 antigen test
(d) CD4 count

2016

158. A normal three year old baby should be able to do the following tasks except:
(a) Using hands and feet simultaneously
(b) Riding tricycle
(c) Copying a square
(d) Using pair of scissors

2016

159. A seven year old child presents with intermittent claudication, pain and weakness of legs and dyspnea on running. Examination shows delayed and weak femorals compared to brachial arteries. The heart size is normal with a left ventricular forcible apex. The most probable diagnosis is:
(a) Ventricular septal defect
(b) Patent ductus arteriosus
(c) Atrial septal defect
(d) Coarctation of aorta

2016

160. A seven day old baby presents with complaints of vomiting and diarrhoea. Examination reveals cataract in both the eyes and jaundice. What is the most probable diagnosis?
(a) Rh incompatibility
(b) Galactosemia
(c) Congenital rubella syndrome
(d) Congenital syphilis

2016

161. A two year old child is admitted with history of fever for two weeks and convulsions for the last one day. CSF examination shows CSF pressure elevated to 30-40 cm H_2O, clear CSF, lymphocytic pleocytosis (250 cells/mm^3), elevated protein and low chloride levels. What is the most probable diagnosis?
(a) Pyogenic meningitis
(b) Tubercular meningitis
(c) Acute encephalitis
(d) Sabacute sclerosing pan encephalitis (SSPE)

2016

NODIA

162. Features of Turner syndrome in childhood include the following except:
(a) Webbed neck
(b) Cubitus valgus
(c) Shield chest with widely spaced nipples
(d) Polydactyly

2016

163. The following drugs can be used as steroid sparing agents in the treatment of nephrotic syndrome in children except:
(a) Levamisole
(b) Aspirin
(c) Cyclophosphamide
(d) Mycophenolate mofetil

2016

164. In childhood acute lymphoblastic leukemia, the following are good prognostic factors except:
(a) Age between 1 and 9 years
(b) Female sex

144. A two year old child presents with partial albinism and susceptibility to infection. Peripheral smear examination reveals giant peroxidase positive lysosomal granules in granulocytes. Which of the following is most likely diagnosis?
(a) Angelman Syndrome
(b) Hermansky Pudlak Syndrome
(c) Waardenburg Syndrome
(d) Chediak Higashi syndrome

2017

145. A one year old child on exclusive milk feeds presents with constipation. On examination there is no fecal impaction. What is the next step in management?
(a) Oral lactulose
(b) Increasing intake of vegetables and cereals
(c) Colonic enemas using polyethylene glycol
(d) Milk of Magnesia

2017

146. A six year old boy presents with generalized seizure disorder and hypo pigmented skin lesions. On examination he has tiny red nodules over the nose and cheeks. The most likely diagnosis is:
(a) Tuberous sclerosis
(b) Sturge Weber disease
(c) PHACE Syndrome
(d) Neurofibromatosis

2017

147. A 6 year old child presents with oliguria, haematuria, puffiness of face, convulsions, B.P. of 200/100 mm Hg and blood urea 80 mg%. What is the most likely diagnosis?
(a) Haemolytic uraemic syndrome
(b) Nephrotic syndrome
(c) Acute glomerulonephritis with hypertensive encephalopathy
(d) Obstructive uropathy

2016

148. A 3 year old child is brought for sudden inability to walk following fever of two days duration. On clinical examination, sensorium is normal, both the lower limbs are hypotonic with the right limb more affected than the left. Plantar reflex is equivocal and deep tendon reflexes are not eliciable in the lower limbs on both sides. The most probable diagnosis is
(a) Acute poliomyelitis
(b) Acute rheumatic fever
(c) Acute transverse myelitis
(d) Acute infective polyneuritis

2016

149. X-ray of the skull in an infant shows periventricular calcification in
(a) Tuberculous meningitis
(b) Cytomegalovirus infection
(c) Japanese B encephalitis
(d) Congenital syphilis

2016

150. A 4 year old boy diagnosed as a case of sickle cell disease presents with pain and swelling of bones, marked in small bones of hand and feet along with severe pain in abdomen. Investigation reveals necrosis of femoral head and upper third of tibia. The symptoms have resolved after one week. The possible explanation is:
(a) Aplastic crisis
(b) Sequestration crisis
(c) Vaso-occlusive crisis
(d) Hemolytic crisis

2016

151. Match List I with List II and select the correct answer using the code given below the lists:

	List I		**List II**
A.	Down Syndrome	1.	47, XY, +21
B.	Turner Syndrome	2.	46, XY
C.	Noonan Syndrome	3.	46, XX, 5p–
D.	Cri-du-chat Syndrome	4.	45, XO

(a) A1 B4 C2 D3
(b) A1 B4 C5 D3
(c) A1 B2 C3 D4
(d) A1 B5 C4 D3

2016

152. With reference to Paediatrics, the following are true of breath holding spells except:
(a) They occur during inspiration
(b) They are involuntary
(c) Cyanosis may not occur
(d) Bradycardia may occur

2016

153. The confirmatory diagnostic test for thalassemia carrier status is:
(a) Low hemoglobin level
(b) Haemoglobin A2 more than 3.5%
(c) Foetal haemoglobin more than 10%

Click Here to Buy book on Amazon

(c) Nephrotic syndrome, steroid dependent
(d) Nephrotic syndrome, steroid resistant

2017

136. A 7 year old girl presents to you with non-specific abdominal pain, mild abdominal distension, and not growing well. The child weighs 14 kg and height is 95 cm. Systemic examination is normal. The haemoglobin was 7.5 g/dL (microcytic hypochromic RBCs) and has not responded to iron therapy. Which of the following will be the first investigation you will like to do for diagnosing the condition?
(a) Bone marrow aspiration
(b) Tissue trans glutaminase antibodies
(c) Lower GI contrast examination
(d) Colonoscopy/sigmoidoscopy

2017

137. A seven year old boy weighing 20 kg presented with bleeding from upper GI tract (homogenesis) for last 18 hours. On examination, PR=86/min, RR=16/min and BP=100/70 mmHg; and spleen is palpable 5 cm below costal margin. There is no other abnormality. Liver function tests are normal. What is the next best step in management?
(a) Fluid resuscitation with crystalloids
(b) Intravenous vasopressin
(c) Intravenous propranolol
(d) Transdermal nitroglycerine

2017

138. A seven year old girl presents in emergency room with hypertension, lethargy, headache, seizures, and visual disturbances. Fundus examination reveals hemorrhages and exudates. Which of the following treatment regimen will be the most appropriate for this child?
(a) Sublingual nifedipine
(b) Intravenous labetalol infusion
(c) Intravenous minoxidil
(d) Furosemide

2017

139. On routine newborn screening at day 3 of life, the baby was found to have TSH level 40 mU/L. What should be the next step?
(a) Repeat thyroid profile within one week
(b) Start child on thyroxine immediately
(c) Repeat thyroid profile after four weeks
(d) Repeat thyroid profile / start thyroxine, if the child has clinical features of congenital hypothyroidism, otherwise wait and watch

2017

140. A two day old neonate is brought with cyanosis, single second heart sound, and pansystolic murmur on the left sternal border. ECG reveals left axis deviation, right atrial overload and left ventricular hypertrophy. What is the most likely diagnosis?
(a) Tetrology of Fallot
(b) Tricuspid atresia
(c) Transposition of great arteries
(d) Total anomalous pulmonary venous connection

2017

141. A three year old girl is brought with complaint of not being able to ever stand or walk. She achieved head control at one year of age. Examination reveals generalized hypotonia, brisk knee jerk, and ankle clonus. What is the likely diagnosis?
(a) Cerebral palsy
(b) Spinal muscular atrophy
(c) Congenital hypothyroidism
(d) Congenital myotonic dystrophy

2017

142. A child is brought with history of ingestion of an unknown substance. On examination child has excess salivation, lacrimation, miosis, gastrointestinal cramps and emesis. What was the most likely substance ingested?
(a) Carbamates
(b) Phenothiazines
(c) Opioids
(d) Tricyclic antidepressants

2017

143. A term newborn presents with respiratory failure which is refractory to mechanical ventilation, surfactant replacement therapy, glucocorticoid administration and extra corporeal membrane oxygenation. The most likely diagnosis is:
(a) Surfactant Protein B deficiency
(b) Primary ciliary dyskinesia
(c) Persistent tachypnea of infancy
(d) Lymphocytic interstitial pneumonitis

2017

NODIA

(c) Leukocyte count less than 50,000/mm^3
(d) Hypodiploidy

2016

165. Consider the following statements about polyarticular juvenile rheumatoid arthritis:
1. It is more common in girls
2. Five or more joints are affected within the first six months of onset
3. Uveitis occurs in 95% patients
4. Rheumatoid factor may be negative

Which of the statements given above are true?
(a) 1 and 4 only
(b) 1, 2 and 4
(c) 2, 3 and 4
(d) 2 and 3 only

2015

166. Seward 'blanks out' in class (e.g. stops talking mid sentence and then continues as if nothing had happened). During spells there is slight quivering of lips. What is the most probable diagnosis?
(a) Mutism
(b) Autism
(c) Adjustment disorder
(d) Absence seizure

2015

167. Consider the following statements:
1. Iron poisoning
2. Kerosene poisoning
3. Corrosive poisoning
4. Aspirin poisoning

Which of the above statements are correct?
(a) 2, 3 and 4
(b) 1, 2 and 4
(c) 2 and 3 only
(d) 1 and 3

2015

168. Consider the following:
1. Visible gastric peristalsis
2. Bilious vomiting
3. Palpable mass
4. Melena

Which of the above is/are the feature/features of infantile hypertrophic pyloric stenosis?
(a) 1, 2 and 3
(b) 1 and 3 only
(c) 2 and 4
(d) 4 only

2015

169. A very large ventricular septal defect should be operated:
(a) In school going age
(b) Only if CHF is uncontrolled
(c) Before six months of age
(d) Soon after birth

2015

170. A 2 year old boy is being evaluated for severity of malnutrition. The child weighs 7 kg and measures 74 cm in length. Expected (median) weight for height, and height for age for this child are 9 kg and 86 cm respectively. According to WHO classification of undernutrition, which of the following is the correct category for this child?
(a) Wasted, stunted
(b) Wasted, severly stunted
(c) Severly wasted, stunted
(d) Severly wasted, severly stunted

2015

171. Catch-up diet for treatment of severe malnutrition in children should achieve the following:
(a) Calorie 150-220 kcal/kg/d; protein 4-6 g/kg/d
(b) Calorie 125-175 kcal/kg/d; protein 4-6 g/kg/d
(c) Calorie 125-175 kcal/kg/d; protein 2-4 g/kg/d
(d) Calorie 150-220 kcal/kg/d; protein 2-4 g/kg/d

2015

172. Which one of the following is not a feature of vitamin D deficiency rickets?
(a) Decrease in parathyroid hormone level
(b) Decrease in gut calcium absorption
(c) Decrease in renal phosphate excretion
(d) Increase in serum alkaline phosphatase

2015

173. A child presents with moderate fever for two months. On examination, she had moderate anaemia and a few petechia. All the following can be the diagnosis except:
(a) Acute leukemia
(b) Tuberculosis
(c) Typhoid
(d) Juvenile rheumatoid arthritis

2015

Downloaded from www.pdf.tube

(a) A-1 B-3C-2 D-4
(b) A-1 B-4 C-2 D-3
(c) A-2 B-3 C-4 D-1
(d) A-3 B-1 C-2 D-4

2013

207. The most likely diagnosis in a 2-day old neonate with indirect hyperbilirubinemia, positive direct Coombs' test and spherocytes on peripheral blood smear is
(a) Cephalhematoma
(b) ABO incompatibility
(c) Hereditary spherocytosis
(d) G-6-P-D deficiency

2013

208. An asymptomatic 3-year old girl is brought to the emergency department after 2 hours of accidental kerosene ingestion. The appropriate management is
(a) gastric lavage
(b) inducing emesis
(c) chest X-ray and observation
(d) charcoal haemoperfusion

2013

209. The most common aetiology of short stature is
(a) Thyroxine deficiency
(b) Growth hormone deficiency
(c) Systemic disease
(d) Constitutional growth delay

2012

210. A 4-month-old infant presents with itchy papules and burrows on the wrist, web spaces, genitalia and trunk. The most appropriate treatment for this is
(a) Permethrin 1% (w/w) cream
(b) Permethrin 5% (w/w) cream
(c) Gamma benzene hexachloride 1% lotion
(d) Benzyl benzoate 25% lotion

2012

211. Supplementation with which of the following vitamins during the antenatal period can prevent the neural tube defects in a baby ?
(a) Riboflavin
(b) Pyridoxine
(c) Folic acid
(d) Cyano cobalamine

2012

212. The most common cause of preventable blindness in children in India is
(a) Trachoma
(b) Traumatic cataract
(c) Vitamin A deficiency
(d) Recurrent conjunctivitis

2012

213. The approximate protein content of breast milk is
(a) 0·9 – 1·1 g/dL
(b) 2·0 – 3·0 g/dL
(c) 3·5 – 4·0 g/dL
(d) 5·0 – 5·5 g/dL

2012

214. The following are the hallmarks of Nephrotic syndrome in children except
(a) Severe proteinuria 2 gm/m^2/day
(b) Hypoalbuminemia < 2.5 g/dL
(c) Gross hematuria
(d) Edema

2012

215. Which of the following is not a feature of Sydenham's chorea ?
(a) Hypotonia
(b) Unintelligible Speech
(c) Emotional lability
(d) Seizures

2012

216. At what wavelength is phototherapy most effective ?
(a) 150 nm
(b) 250 nm
(c) 350 nm
(d) 450 nm

2012

217. A 5-year-old boy is suffering from minimal change nephrotic syndrome. For bringing about a remission induction, the drug of choice is
(a) Furosemide
(b) Levamisole
(c) Cyclophosphamide
(d) Prednisolone

2012

218. Which of the following is not a feature of arthritis in acute rheumatic fever ?
(a) Elevated ASO titre
(b) Joint deformities are common sequel
(c) Dramatic response to aspirin
(d) Involvement of large joints

2012

NODIA

182. Match List I with List II and select the correct answer using the Code given below the lists:

	List I		List II
A	Extrapyramidal cerebral palsy	1	Stroke
B	Spastic quadriplegia	2	Multicystic encephalomalacia
C	Spastic hemiplegia	3	Periventricular leukomalacia
D	Spastic diplegia	4	Bilirubin encephalopathy

(a) A-4, B-2, C-1, D-3
(b) A-3, B-4, C-2, D-1
(c) A-3, B-4, C-1, D-2
(d) A-4, B-2, C-1, D-3

2015

183. Consider the following statements about staphylococcal pneumonia:
1. Three-fourth of the patients are below the age of one year.
2. Pneumatoceles are common.
3. It is the commonest cause of empyema in a child below two years of age.
4. The condition is easily amenable to treatment in the outdoors.

Which of the above statements are correct?
(a) 1, 2 and 3
(b) 1 and 2 only
(c) 1 and 4
(d) 2 and 3 only

2014

184. A 6 week old infant presents with recurrent nonbilious vomiting with some dehydration. A mass is palpable in right upper quadrant of abdomen with visible peristalsis. The most likely diagnosis is:
(a) Intussusception
(b) Congenital hypertrophic pyloric stenosis
(c) Small intestine obstruction
(d) Duodenal atresia

2014

185. A 2 year old previously healthy child develops abrupt onset high grade fever, drooling of saliva and respiratory distress. He has a toxic look and becomes severely ill within few hours. What is the most likely clinical diagnosis?
(a) Acute ton silo pharyngitis
(b) Tracheo-oesophageal fistula
(c) Acute Epiglottitis
(d) Laryngeal web

2014

186. A 6 year old child presents with oliguria, haematuria, puffiness of face. He has a convulsion and blood pressure is found to be 200/100 mm Hg. Laboratory tests reveal hemoglobin: 12 g/dl, total leucocyte count: 7200/mm^3, platelet count: 3.1 lakhs/mm^3, blood urea: 80 mg/dl and serum creatinine: 1.1 mg/dl. What is the most likely diagnosis?
(a) Haemolytic uraemic syndrome
(b) Urinary tract infection
(c) Acute glomerulonephritis with hypertensive encephalopathy
(d) Obstructive uropathy

2014

187. A two year old child with acute watery diarrhea and severe dehydration presents to the emergency. Which of the following is the most appropriate initial treatment?
(a) Ringer lactate at 30 ml/kg given intravenously in 30 minutes
(b) Oral rehydration solution through nasogastric tube
(c) Ringer lactate at 10 ml/kg given intravenously in 2 hours
(d) Normal saline at 10 ml/kg given intravenously in 2 hours

2014

188. A diagnosis of steroid dependent nephrotic syndrome is made in a 5 year old male child and he is initiated on a drug. After 6 weeks of therapy, he develops nausea, vomiting, neutropenia and gross hematuria. Which of the following is the most likely drug used?
(a) Cyclophosphamide
(b) Levamisole
(c) Cyclosporine
(d) Prednisolone

2014

189. Consider the following statements regarding distal renal tubular acidosis:
1. Blood biochemistry reveals normal anion gap metabolic acidosis
2. There is defective secretion of H^+ in the distal tubule

Click Here to Buy book on Amazon

174. Which of the following statements is true regarding juvenile chronic myeloid leukemia?
(a) Philadelphia chromosome is negative
(b) Thrombocytopenia is uncommon
(c) The prognosis is better than the adult form of chronic myeloid leukemia
(d) Single agent chemotherapy with busulfan or hydroxyurea can achieve remission

2015

175. Consider the following features:
1. X-linked recessive inheritance
2. Atopic dermatitis
3. Low serum levels of IgA

Which of the above is/are the characteristic features of Wiskott-Aldrich syndrome?
(a) 1 only
(b) 1 and 2 only
(c) 3 only
(d) 1, 2 and 3

2015

176. A 5 year old child presented with microcytic hypochromic anaemia. Serum ferritin is low. Which of the following is least likely?
(a) Celiac disease
(b) Thalassemia major
(c) Nutritional anaemia
(d) Paroxysmal nocturnal hemoglobinuria

2015

177. An infant can sit leaning forward on his hands. He bounces actively when made to stand. He laughs aloud and becomes concerned when the mother moves away. What is his most likely age?
(a) 12 weeks
(b) 16 weeks
(c) 22 weeks
(d) 28 weeks

2015

178. Match List I with List II and select the correct answer using the code given below the lists:

	List I		**List II**
A	Skin lesion	1	Histiocytosis
B	Engorged neck veins	2	Galactosemia
C	Cataract	3	Toxoplasmosis
D	Hydrocephalus	4	Constrictive pericarditis

(a) A-1, B-4, C-2, D-3
(b) A-1, B-4, C-2, D-3
(c) A-3, B-4, C-2, D-1
(d) A-4, B-3, C-2, D-1

2015

179. The most common type of juvenile rheumatoid arthritis is:
(a) Rheumatoid factor positive polyarticular
(b) Rheumatoid factor negative polyarticular
(c) Pauciarticular type
(d) Systemic onset type

2015

180. An 8 year old boy presented to the Emergency Department on the fourth day of fever during a dengue epidemic. He had a mild erythematous rash on his body and no bleeding from any site. His BP was 110/70 mmHg and pulse was 94/minute. Hess test was positive. Dengue serology report is awaited. Platelet count is 30,000/cm^3 and PCV: 36%. What is the treatment of choice?
(a) Plenty of oral/ IV fluids and observation
(b) Emergency platelet transfusion to raise platelets above 50,000/cm^3
(c) IV anti-D immune globulin
(d) Give antipyretic and wait for dengue serology report

2015

181. A previously well 2 year old boy presents with a brief generalized seizure. There is no past or family history of seizures. On examination, child is alert, active, febrile with axillary temperature of 39.4°C. Except for bilateral tonsillar enlargement and congestion, systemic examination is normal. Management at this time may include:
1. Immediate reduction of body temperature
2. Intravenous diazepam and phenytoin, followed by a lumbar puncture
3. Institution of phenytoin for maintenance therapy for at least one year
4. Rectal diazepam every 8 hourly for 2-3 days to reduce the risk of recurrence

Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 1 and 4 only
(c) 3 and 4
(d) 1, 2 and 4

2015

NODIA

198. Which of the following pairs is not correctly matched?
(a) Turner's syndrome — 45, X
(b) Down syndrome — 47, XY, +21
(c) Klinefelter's syndrome — 47, XXY
(d) Marfan's syndrome — 47, XYY

2014

199. Which one of the following antibodies is most specific in children with systemic lupus erythematosus?
(a) Anti neutrophil cytoplasmic antibody
(b) Anti myeloperoxidase antibody
(c) Anti double stranded DNA antibodies
(d) Anti histone antibodies

2014

200. Match List I with List II and select the correct answer using the code given below the lists:

	List I		List II
A	Hepatitis B vaccine	1	Live attenuated vaccine
B	Diphtheria vaccine	2	Sub unit vaccine
C	Haemophilus influenzae vaccine	3	Toxoid
D	Measles vaccine	4	Polysaccharide vaccine

Code:
(a) A-1 B-4 C-2 D-3
(b) A-2 B-3 C-4 D-1
(c) A-4 B-1 C-2 D-3
(d) A-3 B-1 C-2 D-4

2014

201. The following congenital heart diseases are associated with cyanosis except
(a) complete transposition of the great arteries
(b) single ventricle with or without pulmonic stenosis
(c) hypoplastic left heart
(d) atrial septal defect with mitral stenosis

2013

202. Consider the following statements regarding coarctation of aorta :
1. It may be associated with Turner syndrome
2. It most commonly occurs near the insertion of the ligamentum arteriosum
3. It is twice as common in females than males
4. It may be associated with bicuspid aortic valve

Which of the statements given above are correct?
(a) 1, 2 and 3
(b) 2, 3 and 4
(c) 1, 3 and 4
(d) 1, 2 and 4

2013

NODIA

203. A 2-year old child presents with generalized muscle hypotonia and weakness. Distal muscles are affected more than the proximal muscle groups. Facial muscles are spared. Deep tendon reflexes are diminished. Electromyography reveals fibrillation pattern. The most likely site of involvement is
(a) anterior horn cell
(b) peripheral nerve
(c) neuromuscular junction
(d) muscle

2013

204. Confirmation of the diagnosis of Hirsch sprung disease is by
(a) barium enema
(b) sigmoidoscopy
(c) rectal biopsy
(d) family history

2013

205. A mother brings her 2-year old boy with short history of pallor. Examination reveals pallor, petechiae and splenomegaly. Which of the following is the most likely diagnosis?
(a) Thalassaemia
(b) Acute leukaemia
(c) Hodgkin's lymphoma
(d) Idiopathic thrombocytopenic purpura

2013

206. Match List I with List II and select the correct answer using the code given below the Lists:

	List I		List II
A	Acute lymphoblastic leukaemia	1	Recurrent knee joint swelling
B	Juvenile rheumatoid arthritis	2	Lymphadenopathy with petechiae
C	Thalassaemia	3	Swelling of small joints of hands
D	Haemophilia	4	Hepatosplenomegaly with severe pallor

Code :

3. There may be associated muscle weakness and rickets
4. Children may present with polydipsia and polyuria

Which of the above statements are correct?
(a) 1 only
(b) 2 and 3 only
(c) 2 and 4 only
(d) 1, 2, 3 and 4

2014

190. One year old male child presents with poor urinary stream and dribbling of urine since birth. A mass is palpable mass just above the symphysis pubis. The most likely diagnosis is:
(a) Tumor of the urinary bladder
(b) Posterior urethral valve
(c) Ureterocele
(d) Neuroblastoma

2014

191. A 4 years old child presents with rash on lower limbs, arthritis, and abdominal pain. Urine examination reveals microscopic hematuria. The most likely diagnosis is:
(a) Thrombasthenia
(b) Idiopathic thrombocytopenic purpura
(c) Systemic lupus erythematosus
(d) Henoch Schonlein purpura

2014

192. The following milestones can be achieved by a 12 month old infant except:
(a) Wave bye bye
(b) Speak mama, baba, dada
(c) Make a tower of 6 blocks
(d) Stand without support

2014

193. Which one of the following is not a feature of severe combined immunodeficiency in children?
(a) Enlarged thymus
(b) Decreased serum immunoglobulin levels
(c) Defective T cell function
(d) Recurrent pulmonary infections

2014

194. Children with an autosomal recessive condition have partial albinism, susceptibility to infections and presence of giant peroxidase positive lysosomal granules in granulocytes. What is the most probable diagnosis?
(a) Chediak Higashi syndrome
(b) Hermansky Pudlak syndrome
(c) Piebaldism
(d) Waardenburg's syndrome

2014

195. A 50 hours old full term breast–fed newborn boy weighing 3100 g presents with jaundice. Physical examination is normal. The total serum bilirubin is 11.0 mg/dL with a direct bilirubin of 0.4 mg/dL. The correct treatment would be to:
(a) Continue breast feeds and review after 48 hours
(b) Stop breast feeds and review after 24 hours
(c) Continue breast feeds and start blue–light phototherapy
(d) Arrange for a double volume exchange transfusion

2014

196. Match List I with List II and select the correct answer using the code given below the lists:

	List I		**List II**
A	Foetal alcohol syndrome	1	Bicuspid aortic valve
B	Turner's syndrome	2	Endocardial cushion defect
C	Down syndrome	3	Pulmonary stenosis
D	Congenital rubella syndrome	4	Ventricular septal defect

Code:
(a) A-3 B-2 C-1 D-4
(b) A-3 B-1 C-2 D-4
(c) A-4 B-1 C-2 D-3
(d) A-4 B-1 C-2 D-3

2014

197. A 12 months old baby boy weighs 4.5 kg and measures 60 cm. He has marked loss of subcutaneous fat and has no edema. What form of protein energy malnutrition does the baby have?
(a) Grade III protein energy malnutrition
(b) Grade IV protein energy malnutrition with K
(c) Marasmic Kwashiorkar
(d) Marasmus

2014

Downloaded from www.pdf.tube

219. Approximate caloric requirements of an infant at the age of 12 months would be
(a) 500 Kcal
(b) 700 Kcal
(c) 1,000 Kcal
(d) 1,200 Kcal

2012

220. The most common cause of epistaxis in a 4-year-old boy is
(a) Chronic rhinitis
(b) Nasal polyp
(c) Foreign body
(d) Nose picking

2012

221. A 5-year-old child presents with short history of purpuric rash, pain and swelling of both knee joints and pain in abdomen. The most likely diagnosis is
(a) Idiopathic thrombocytopenic purpura
(b) Kawasaki disease
(c) Henoch–Schönlein purpura
(d) Takayasu arteritis

2012

222. The following vaccines can be administered subcutaneously except
(a) Measles vaccine
(b) Varicella vaccine
(c) BCG
(d) MMR vaccine

2012

223. In a normal child who weighs 15 kg, the daily fluid maintenance requirement will be approximately
(a) 1000 ml
(b) 1250 ml
(c) 1500 ml
(d) 1750 ml

2012

224. A 6-month-old male infant presents with progressive weakness, severe pallor, cardiac decompensation and splenomegaly. The peripheral smear shows microcytosis with normoblasts. What is the most likely diagnosis?
(a) Sickle cell disease
(b) Iron deficiency anaemia
(c) Thalassaemia
(d) Sideroblastic anaemia

2012

225. A 2-year-old child presents with a history of accidental ingestion of kerosene. He has cough, dyspnoea, high fever and his chest radiograph shows ill-defined patchy opacities. What is the most probable diagnosis ?
(a) Loeffler's syndrome
(b) E. coli pneumonia
(c) Allergic bronchopulmonary aspergillosis
(d) Lipoid pneumonia

2011

226. A 3-kg male infant is cyanotic at birth. On cardiac auscultation, the first heart sound is normal, and the second heart sound is single. A grade III/IV harsh ejection systolic murmur is present along the lower left sternal border. The ECG shows left axis deviation, right atrial enlargement and left ventricular hypertrophy. What is the likely diagnosis ?
(a) Tricuspid atresia
(b) Pulmonary atresia
(c) Total anomalous pulmonary venous return
(d) Transposition of Great Arteries with ventricular septal defect

2011

227. The most common congenital cardiac abnormality associated with the maternal rubella infection during pregnancy is
(a) Atrial septal defect
(b) Patent ductus arteriosus
(c) Ventricular septal defect
(d) Coarctation of aorta

2011

228. A 9-month-old infant is brought with a history of low grade fever, cough and breathlessness for the last two days. He does not appear toxic or cyanosed. His respiratory rate is 64/min and the chest has few crepitations, but he has a bilateral wheeze. The chest X-ray shows hyperinflation of the lungs. The most likely diagnosis is
(a) Acute laryngotracheobronchitis
(b) Bronchiolitis
(c) Endobronchial tuberculosis
(d) Bronchial asthma

2011

229. A 7-month-old infant presents with stridor since the tenth day of life. What is the most likely cause ?
(a) Laryngotracheobronchitis
(b) Tracheo-esophageal fistula

NODIA

(c) Parietal bone
(d) Occipital bone

2014

311. Neo-natal infection in a Hepatitis 'B' positive pregnant woman can be prevented by administering:
(a) Hepatitis 'B' vaccine
(b) Immunoglobulin
(c) Vaccine and Immunoglobulin
(d) Corticosteroids

2014

312. The primary route of administration of measles vaccination is:
(a) Subcutaneous
(b) Intradermal
(c) Intravenous
(d) Intranasal

2014

313. Most common manifestation of Wilm's tumour is :
(a) Haematuria
(b) Abdominal mass
(c) Hypertension
(d) Loss of weight

2013

314. Most common cause of intestinal obstruction in childhood is :
(a) Intussusception
(b) Hirschsprung's disease
(c) Volvulus
(d) Mucoviscidosis

2013

315. The treatment of choice for congenital hypertrophic pyloric stenosis is :
(a) Heller's operation
(b) Duodenojejunostomy
(c) Ramstedt's operation
(d) Gastrojejunostomy

2013

316. Integrated management of neonatal and childhood illness includes all except :
(a) Malaria
(b) Pneumonia
(c) Diarrhoea
(d) Tuberculosis

2013

317. Toxic shock syndrome occurs after one of the following vaccinations :
(a) DPT
(b) Recombinant DNA Vaccine against Hepatitis B
(c) Oral polio vaccine
(d) Measles vaccine

2013

318. Child starts speaking short sentences by the age of :
(a) 12 months
(b) 15 months
(c) 24 months
(d) 36 months

2013

319. The minimum accepted interval between the two doses of D.P.T. is
(a) 4 weeks
(b) 6 weeks
(c) 8 weeks
(d) 10 weeks

2012

320. A 9-month-old infant is brought to you for immunization. The infant has previously received the first dose of OPV and DPT. What will you do?
(a) Repeat the first dose counting afresh
(b) Give the infant DT/OPV
(c) Give the infant second dose of DPT/OPV
(d) Give the infant a booster dose of DPT/Polio

2012

321. A 37-week small-for-date neonate is not likely to develop
(a) Hypocalcaemia
(b) Hypoglycaemia
(c) Hypothermia
(d) Hyaline membrane disease

2011

322. Which micronutrient supplement should be administered during an acute episode of diarrhoea ?
(a) Iron
(b) Copper
(c) Calcium
(d) Zinc

2011

323. A 15-month-old child presents with fever and cough since the last two days, the respiratory

Click Here to Buy book on Amazon

241. Which of the following is not typical of simple febrile seizures ?
(a) The age of onset is usually between six months and six years
(b) The seizures last for less than 30 minutes
(c) The seizures are more likely to occur if the body temperature rises rapidly
(d) The seizures are followed by Todd's paralysis
2011

242. A 10-year-old girl is brought with recent onset abnormal body movements and emotional lability. She has a history of recurrent sore throat in the past. On examination, she is found to have jerky movements of upper limbs and facial grimacing. What is the likely diagnosis ?
(a) Wilson's disease
(b) Rheumatic chorea
(c) Encephalitis
(d) Brain tumour
2011

243. The clinical features of congenital syphilis in neonatal period include the following except
(a) Interstitial keratitis
(b) Choroiditis
(c) Meningitis
(d) Osteochondritis
2010

244. The clinical finding in trisomy 21 includes the following except
(a) Growth failure
(b) Intestinal stenosis
(c) Mental retardation
(d) Brachydactyly
2010

245. The immunoglobulin which passes through placenta and gives immunity to newborns is
(a) IgM
(b) IgA
(c) IgG
(d) IgE
2010

246. An 8-month-old female child presented to emergency with a heart rate of 220/minute and features of congestive heart failure. Her heart rate comes down to normal after administering intravenous adenosine. What is the most likely diagnosis?
(a) Atrial fibrillation
(b) Atrial flutter
(c) Paroxysmal supraventricular tachycardia
(d) Ventricular tachycardia
2010

247. A newborn infant was referred with intermittent cyanosis which improved on crying but worsened when quiet. What is the most likely diagnosis?
(a) Diaphragmatic hernia
(b) Congenital heart disease (Cyanotic)
(c) Choanal atresia
(d) Tracheal agenesis
2010

248. What is the correct composition (per litre) of WHO Reduced Osmolarity ORS?
(a) NaCl 2.29 g; KCl 1.1 g; Glucose 13.1 g; Citrate 2.5 g
(b) NaCl 2.49 g; KCl 1.3 g; Glucose 13.3 g; Citrate 2.7 g
(c) NaCl 2.69 g; KCl 1.5 g; Glucose 13.5 g; Citrate 2.9 g
(d) NaCl 2.89 g; KCl 1.7 g; Glucose 13.7 g; Citrate 3.1 g
2010

NODIA

249. Which one of the following is not a feature of Turner's syndrome?
(a) Webbed neck
(b) Horse-shoe kidney
(c) Coarctation of aorta
(d) Mental retardation
2010

250. The following is usually the first sign of puberty in girls:
(a) Onset of menstruation
(b) Appearance of pubic hair
(c) Change in voice
(d) Increase in breast size
2010

251. Guthrie test can be used for the diagnosis of
(a) Tyrosinemia
(b) Galactosemia
(c) Alcaptonuria
(d) Phenylketonuria
2010

252. A one-week-old male newborn suddenly presents with lethargy, poor oral intake and features of shock. Investigations reveal hyperkalemia,

272. What is the correct composition of the standard maintenance solution for intravenous administration in children?
(a) 5% dextrose, 25 m Eq/L of sodium, 20 m Eq/L of potassium
(b) 10% dextrose, 25 m Eq/L of sodium, 30 m Eq/L of potassium
(c) 5% dextrose, 40 m Eq/L of sodium, 20 m Eq/L of potassium
(d) 10% dextrose, 40 m Eq/L of sodium, 30 m Eq/L of potassium

2009

273. Which of the following is not the correct sign of good attachment of a baby to the breast?
(a) Baby's mouth wide open
(b) Lower areola more visible
(c) Baby's lower lip everted
(d) Baby's chin touching the breast

2009

274. Which one of the following is not a characteristic of tuberous sclerosis?
(a) Seizures
(b) Adenoma sebaceum
(c) X-linked recessive inheritance
(d) Shagreen patches

2009

275. Which one of the following is correct regarding 'witch's milk'?
(a) It is seen in full-term infants.
(b) It is seen only in preterm infants.
(c) It is caused by stimulation of foetal breast by progesterone.
(d) It is caused by stimulation of foetal breast by calcitonin.

2024

276. A 30-year-old female P_2L_2 had a forceps delivery 2 days back. There was injury to head of baby resulting in collection of blood in soft tissue between pericranium and flat bone of skull, limited by suture line. What is the probable diagnosis?
(a) Caput succedaneum
(b) Intraventricular hemorrhage
(c) Cephalohaematoma
(d) Subgaleal hemorrhage

2024

277. Which of the following 'rare vaccine reactions' are known to occur with BCG vaccine?
1. Suppurative lymphadenitis
2. Guillain-Barre syndrome
3. Osteitis
4. Disseminated infection

Select the correct answer using the code given below.
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2022

278. In a newborn, the Apgar score has been recorded at 1 minute of birth. The doctor recorded the following observations:

Sign	Finding
Heart rate	92 per minute
Respiratory effort	Slow, irregular
Muscle tone	Flaccid
Reflex response	No response
Colour	Body pink, extremities blue

Which one of the following best reflects the Apgar score of this newborn infant on a scale of 0 to 10?
(a) 0
(b) 2
(c) 3
(d) 5

2022

279. The recommended dose of cotrimoxazole for treatment of pneumonia in a child weighing 16 kg is
(a) One paediatric tablet twice a day
(b) Two paediatric tablets twice a day
(c) Three paediatric tablets twice a day
(d) Four paediatric tablets twice a day

2021

280. Hepatitis B vaccine administered at birth is
(a) A pentavalent vaccine
(b) A combined vaccine of inactivated Polio and Hepatitis B
(c) A monovalent vaccine of Hepatitis B
(d) A fixed combination vaccine of Hib, Hepatitis A and Hepatitis B

2021

Downloaded from www.pdf.tube

Which of the above diagnostic criteria are suggestive of Inattention (attention deficit) in a child ?
(a) 1 and 2 only
(b) 1 and 3 only
(c) 2 and 4 only
(d) 1, 2, 3 and 4

2009

263. A new-born baby develops cyanosis on day three of life. On auscultation, there is a systolic murmur. Echo cardiography reveals a cyanotic heart disease in the baby. Which one of the following drugs can be administered to prolong the life of the baby, pending intervention ?
(a) Indomethacin
(b) Ibuprofen
(c) Prostaglandin E_1
(d) Propanolol

2009

264. Consider the following clinical features in a full term neonate :
1. Rate of rise of bilirubin < 10 mg/dl/24 hours
2. Onset of jaundice at 48 hours of age
3. Clay coloured stools
4. Jaundice persisting on day 5

Which of the above clinical features is/are consistent with physiological jaundice ?
(a) 1 only
(b) 1 and 3 only
(c) 2 and 4 only
(d) 1, 2, 3 and 4

2009

265. A new-born baby presents with shock, hyperkalemia and hypoglycemia. What is the most likely diagnosis ?
(a) Septicemia
(b) Inborn error of metabolism
(c) Diabetes mellitus
(d) Congenital adrenal hyperplasia

2009

266. If a five-year-old child suddenly develops stridor, which one of the following would be the most likely diagnosis ?
(a) Laryngomalacia
(b) Acute laryngo-tracheobronchitis
(c) Foreign body aspiration
(d) Acute epiglottitis

2009

267. With reference to a malnourished child, the following statements are correct except :
(a) Skin and mucosa are not effective barriers to infection.
(b) There is impairment of chemotaxis associated with defective candidicidal, bactericidal capacities of polymorphs.
(c) There is impairment of cell mediated immunity and delayed hypersensitivity.
(d) There is impaired humoral response to immunizing agents and reduced number of β-cells.

2009

268. Which one of the following is not a feature of Turner's syndrome ?
(a) Short stature
(b) Microphthalmia
(c) Coarctation of aorta
(d) Lymphedema

2009

269. Which one of the following is not a feature of congenital hypertrophic pyloric stenosis ?
(a) More common in males
(b) Projectile vomiting
(c) Diarrhea
(d) Malnutrition

2009

270. A family of a child just diagnosed with acute lymphoblastic leukemia asks about the child's prognosis. Which of the following is a poor prognostic indicator ?
(a) Presence of mediastinal mass
(b) Age between 1 and 10 years
(c) Hyperploidy with more than 50 chromosomes
(d) WBC count less than 50,000/mm^3 at diagnosis

2009

271. Which one of the following is not correct about hypernatremic dehydration ?
(a) Neurological complications are more common.
(b) The most appropriate fluid for correction is N/2 – N/4 normal saline.
(c) The dehydration should be corrected over 12 hours.
(d) The skin has a doughy feel.

2009

NODIA

(c) Laryngomalacia
(d) Eventration of the diaphragm

2011

230. Which of the following drugs are used in a patient with Tetralogy of Fallot ?
(a) Digoxin, Furosemide and Oxygen
(b) Morphine, Soda-bicarb and Propranolol
(c) Atenolol with D.C. converter
(d) Captopril with Aminophylline

2011

231. A 10-year-old male child presents with purpuric rashes on the lower extremities, haematuria, abdominal pain and arthritis but has no history of fever. What is the most likely diagnosis ?
(a) Meningococcal meningitis
(b) Henoch-Schönlein purpura
(c) Idiopathic thrombocytopenic purpura
(d) Haemolytic uraemic syndrome

2011

232. The features of hemolytic uraemic syndrome in children include :
1. 'Helmet cells' in peripheral blood smear
2. Thrombocytopenia
3. Positive Coombs' test

Select the correct answer using the code given below :
(a) 1, 2 and 3
(b) 1 and 2 only
(c) 2 and 3 only
(d) 1 and 3 only

2011

233. A 2-year-old child with severe dehydration has sudden onset gross haematuria with a unilateral flank mass. The most likely diagnosis is
(a) Haemolytic uraemic syndrome
(b) Wilms' tumour
(c) Renal vein thrombosis
(d) Hydronephrosis

2011

234. Which one of the following is the most abundant constituent of the human surfactant ?
(a) Phosphatidyl ethanolamine
(b) Phosphatidyl inositol
(c) Phosphatidyl glycerol
(d) Phosphatidyl choline

2011

235. A 2-day-old newborn baby is brought with a history of blood in the vomitus. The baby was born full-term by a normal vaginal delivery and cried immediately at birth. He was accepting the breast feeds well. On examination, the baby is active and alert. His abdomen is soft and there is no other evidence of bleeding. His bowel sounds are normal. The platelet count is 1,75,000 per mm^3. What is the most probable diagnosis ?
(a) Hemolytic disease of the newborn
(b) Disseminated intravascular coagulation
(c) Von Willebrand disease
(d) Hemorrhagic disease of the newborn

2011

236. The first permanent tooth to erupt is the
(a) Lower incisor
(b) Molar
(c) Canine
(d) Premolar

2011

237. What is the most likely diagnosis in a neonate with multiple, healed fractures of long bones ?
(a) Osteomalacia
(b) Osteopetrosis
(c) Osteogenesis imperfect a
(d) Congenital rickets

2011

238. The following are the components of Apgar score except :
(a) Colour
(b) Muscle tone
(c) Heart rate
(d) Respiratory rate

2011

239. Under the Jones Criteria, which one of the following is a major criterion for the diagnosis of acute rheumatic fever ?
(a) Elevated acute phase reactants
(b) Elevated ASO titre
(c) Increased PR interval
(d) Carditis

2011

240. In a patient of primary hypothyroidism, the hormonal profile will read
(a) Low T_3, low T_4, low TSH
(b) Low T_3, low T_4, high TSH
(c) High T_3, high T_4, high TSH
(d) Low T_3, low T_4, normal TSH

2011

Click Here to Buy book on Amazon

281. The classical triad of congenital defects in Congenital Rubella Syndrome include which of the following ?
1. Hydrocephalus
2. Deafness
3. Cardiac malformations
4. Cataract

Select the correct answer using the code given below :
(a) 1, 2 and 3
(b) 1, 2 and 4
(c) 1, 3 and 4
(d) 2, 3 and 4

2021

282. A 2 year old child has presented for vaccination, who has never been vaccinated earlier. As per the Universal Immunization Program, which among the following vaccines will be administered to the child on the first visit?
1. BCG vaccine
2. DPT-1 vaccine
3. Hepatitis B vaccine
4. Measles vaccine

Select the correct answer using the code given below:
(a) 1 and 3
(b) 2 only
(c) 1, 2 and 4
(d) 2 and 4 only

2021

283. Which of the following vaccines are given through the intramuscular route?
1. BCG vaccine
2. Hepatitis B vaccine
3. Pentavalent vaccine
4. Inactivated Polio vaccine

Select the correct answer using the code given below:
(a) 2, 3 and 4
(b) 1, 2 and 3
(c) 1, 2 and 4
(d) 1, 3 and 4

2021

284. How much of Zinc supplement is recommended by WHO and UNICEF for infants less than 6 months of age after an episode of acute diarrhoea?
(a) 20 mg per day for 10–14 days
(b) 10 mg per day for 10–14 days
(c) 5 mg per day for 7 days
(d) 6 mg per day for 7 days

2020

285. The incidence of diarrhoea is highest among infants in the age group of 6–11 months due to all of the following reasons EXCEPT:
(a) Declining level of maternal antibodies
(b) Introduction of foods which may be contaminated
(c) Eruption of teeth
(d) Direct contact with human or animal faeces

2020

286. In fetus with Spina bifida, which of the following sign/signs may be seen on ultrasound?
(a) Lemon sign
(b) Banana sign
(c) Defect seen in vertebral bodies or tissue overlying it
(d) All of these

2019

287. In pregnancy with Down syndrome consider the following beermakers:
1. β HCG is raised
2. α FP is raised
3. Inhibin is decreased

Which of the above statements is/are correct?
(a) 1, 2 and 3
(b) 1 only
(c) 2 and 3 only
(d) 1 and 2 only

2019

288. The Maternal serum α-fetoprotein level is elevated in all EXCEPT:
(a) Down syndrome
(b) Neural tube defect
(c) Intra uterine death
(d) Omphalocele

2019

289. Which one of the following is the recommended site for immunization with hepatitis B vaccine in young children for ensuring reliable absorption?
(a) Gluteal region
(b) Anterolateral aspect of thigh
(c) Deltoid region
(d) Anterior aspect of thigh

2019

290. Amniocentesis is called for in all of the following circumstances EXCEPT:

Downloaded from www.pdf.tube

(a) A mother aged 35 years or more
(b) Mother who had a child with Down's syndrome or other chromosomal anomalies
(c) Parents who are known to have chromosomal translocation
(d) A father aged 50 year or more

2019

291. Which of the following is a contraindication for BCG vaccination in a newborn?
(a) Low birth weight
(b) History of Tuberculosis in mother
(c) Prematurity
(d) HIV infection-symptomatic

2019

292. Rashtriya Bal Swasthya Karyakram (RBSK) attempts to identify all of the following deficiencies in children in the age group 0–18 years EXCEPT:
(a) Severe acute malnutrition
(b) Zinc deficiency
(c) Vitamin A deficiency
(d) Vitamin D deficiency

2019

293. Children of severe acute malnutrition discharged from Nutritional Rehabilitation Centres (NRCs) should be observed in the community by an Anganwari Worker (AWW) as per which one of the following schedules?
(a) Once a week for first month and then twice weekly
(b) Twice weekly in first month and then once a week
(c) Once a week for first month and then once fortnightly
(d) Twice weekly in first month and then once fortnightly

2019

294. A woman delivers a healthy baby with weight 2.2 kg at the time of birth. What measures are to be taken?
1. The baby should be exclusively breast fed for first six months
2. The vaccination with OPV and BCG should be delayed till the baby is 2.5 kg of weight
3. Baby should be kept with mother and kangaroo care to be given

Select the correct answer using the code given below:
(a) 1, 2 and 3
(b) 1 and 2 only
(c) 1 and 3 only
(d) 2 and 3 only

2019

295. Flattening of the growth curve in the growth chart signifies:
(a) Child is on a healthy path
(b) Child is severely malnourished
(c) Child is showing signs of growth failure
(d) Child does not need special care

2018

296. Which sign is most important in deciding severe pneumonia in a child?
(a) Fast breathing
(b) Nasal flaring
(c) Chest in drawing
(d) Grunting

2018

297. Consider the following in respect of Navjat Shishu Suraksha Karyakram (NSSK):
1. It is a programme aimed to train health personnel in basic newborn care and resuscitation
2. It addresses care at birth issue (i.e. prevention of hypothermia, prevention of infection, early initiation of breast feeding and basic newborn resuscitation)
3. The objective is to have a trained health person in basic newborn care and resuscitation unit at every delivery point

Which of the statements given above are correct?
(a) 1 and 2 only
(b) 1 and 3 only
(c) 1, 2 and 3
(d) 2 and 3 only

2018

298. Which one of the following conditions can be screened during neonatal screening by biochemical tests?
(a) Congenital dislocation of hip
(b) Congenital hypothyroidism
(c) Chromosomal abnormalities
(d) Congenital rubella

2018

299. What is the correct daily dose of Iron and Folic acid to be prescribed to a child aged 12 years?
(a) 20 mg elemental Iron and 100 mcg folic acid
(b) 30 mg elemental Iron and 250 mcg folic acid

NODIA

(c) 60 mg elemental Iron and 300 mcg folic acid
(d) 100 mg elemental Iron and 500 mcg folic acid

2018

300. When should breast feeding be initiated to an infant born via a normal delivery?
(a) Within half an hour
(b) Within one hour of birth
(c) Within 2–4 hours of birth
(d) After 4 hours of birth

2018

301. How many post natal visits should be made by the ANM to the house of a low birth weight baby?
(a) 2
(b) 4
(c) 6
(d) 8

2018

302. A eight year old male child complains of severe pain in right testes. The most probable diagnosis is
(a) Torsion of right testis
(b) Strangulated Inguinal hernia
(c) Acute epididym-orchitis
(d) Undescended testis

2017

303. The appropriate treatment for the baby of a woman who is HBsAg positive but HBeAg negative is:
(a) Both active and passive immunization soon after birth
(b) Passive immunization soon after birth but active immunization after one year of age
(c) Only active immunization soon after birth
(d) Only passive immunization soon after birth

2017

304. What is the most common cause of intestinal obstruction in neonates?
(a) Meconium ileus
(b) Duodenal atresia
(c) Volvulus neonatorum
(d) Hirschsprung's disease

2016

305. The priority in management of supracondylar fracture of humerus in a child is:
(a) Preservation of Brachial artery entanglement
(b) Debridement of wound
(c) Antibiotics
(d) Immobilization

2015

306. Consider the following features:
1. Visible gastric peristalsis
2. Bilious vomiting
3. Palpable tumour
4. Melena

Which of these is/are feature/features of infantile hypertrophic pyloric stenosis?
(a) 1, 2 and 3
(b) 1 and 3 only
(c) 2 and 4
(d) 4 only

2015

307. Eight months old child had history of unusual crying and convulsions following previous vaccination after BCG, DPT & OPV (first dose), and Hepatitis B. Now parents have brought child for next doses of vaccination. Which vaccine is contraindicated in this situation?
(a) Measles
(b) DPT
(c) Hepatitis B
(d) DT

2015

308. Optimum age for surgery for a child with cleft lip is:
(a) 4 weeks
(b) 4 - 6 weeks
(c) 3 - 6 months
(d) 6 -18 months

2014

309. Consider the following conditions:
1. Otitis media
2. Speech problems
3. Dentition abnormalities

Which of the above is/are associated with cleft palate?
(a) 1 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

2014

310. 56 Cephalhematomas are most commonly found over:
(a) Frontal bone
(b) Temporal bone

Click Here to Buy book on Amazon

hyponatremia and hypo glycaemia. What is the most likely diagnosis?
(a) Syndrome of inappropriate ADH secretion
(b) Gram negative sepsis
(c) Congenital adrenal hyperplasia
(d) Phenylketonuria

2010

253. Which one of the following statements is not correct regarding juvenile rheumatoid arthritis?
(a) The disease begins below 16 years of age
(b) Systemic disease (Still's disease) is the common presentation
(c) Uveitis can be asymptomatic
(d) Course of the disease has no association with uveitis

2010

254. Acrodermatitis enteropathica is associated with the deficiency of
(a) Copper
(b) Cobalt
(c) Chromium
(d) Zinc

2010

255. Following genetic disorders are inherited as autosomal dominant except
(a) Achondroplasia
(b) Neurofibromatosis
(c) Marfan syndrome
(d) Cystic fibrosis

2010

256. Red current jelly stool in an infant is characteristic of
(a) Acute gastroenteritis
(b) Rectal piles
(c) Intussusception
(d) Fissure-in-ano

2010

257. Wilms' tumor is associated with the following except
(a) Aniridia
(b) Horse-shoe kidney
(c) Hemihypertrophy
(d) Opsoclonus

2010

258. What is the most frequent causative agent for acute epiglottitis in children under 5 years of age?
(a) Hemophilus influenza type B
(b) Influenza virus type A
(c) Para influenza virus type 1
(d) Staphylococcus aureus

2010

259. A 4-year-old child is admitted with fever, non-purulent conjunctivitis, rashes, cervical lymphadenopathy, hepatomegaly and desquamation of fingers and toes. Echo cardiography shows coronary artery aneurysm. What is the most likely diagnosis?
(a) Measles
(b) German measles
(c) Progeria
(d) Kawasaki disease

2010

260. A two-month-old infant is brought to the hospital emergency with marked respiratory distress. On examination, the infant has cyanosis and bilateral crepitations. Heart rate is 180/min, respiratory rate 56/min and the liver span 7-5 cm. The child has had repeated episodes of fever, cough and respiratory distress since the time of birth. Cardiovascular examination reveals a grade III ejection systolic murmur in left parasternal area and the chest X-ray reveals cardiomegaly with a narrow base and plethoric lung fields. What is the most likely diagnosis ?
(a) Congenital methemoglobinemia
(b) Transposition of great arteries
(c) Cystic fibrosis
(d) Tetralogy of Fallot

2009

261. A two-year-old boy is brought to emergency with severe anemia (Hb = 2 gm%) and features of congestive heart failure. The most appropriate immediate therapy for this boy would be
(a) Packed cell transfusion
(b) Partial exchange transfusion
(c) Whole blood transfusion
(d) Parenteral iron injection

2009

262. Consider the following behavioral conditions in a child of school age :
1. Fidgets with hands or squirms in seat
2. Easily distracted by extraneous stimuli
3. Often has difficulty awaiting turn
4. Does not seem to listen when spoken to directly

NODIA

rate is 55/min and there is no in-drawing of the chest. According to the National Programme for Acute Respiratory Infections, the line of management should be
(a) Immediate referral of the child to hospital for urgent admission
(b) Referral of the child to hospital for admission, after administration of first dose of antibiotic
(c) Administration of antibiotic at home along with treatment for fever, advising the mother to return for reassessment after two days
(d) Administration of treatment for fever at home, advising the mother to return after two days for assessment of the need for an antibiotic

2011

324. Consider the following radiological signs :
1. Claw sign in barium enema
2. Apple core sign in barium enema
3. Multiple fluid levels with absent caecal gas in plain skiagram of abdomen
4. Single large fluid and air level in plain skiagram of abdomen

Which of the above signs is/are suggestive of ileocolic intussusception?
(a) 1 and 2 only
(b) 1 and 3 only
(c) 3 only
(d) 1, 2, 3 and 4

2010

325. Oesophageal atresia may occur as a part of VACTER group of anomalies. What does 'TE' stand for?
(a) Tetralogy of Fallot
(b) Thoracic empyema
(c) Tracheo-oesophageal fistula
(d) Talipes equinovarus

2010

326. A four-month-old baby has cleft lip and palate. How would you manage the baby?
(a) Immediate repair of the lip
(b) Immediate repair of the lip and palate
(c) Delayed repair of the lip and palate until 2 years
(d) Delayed repair of the lip and palate until pre-school age

2010

327. Which one of the following is a cyanotic congenital heart disease?
(a) Patent ductus arteriosus
(b) Atrial septal defect
(c) Ventricular septal defect
(d) Tetralogy of Fallot

2010

328. What is the most common indication of tracheostomy in a child?
(a) Carcinoma of larynx
(b) Laryngeal diphtheria
(c) Vocal cord paralysis
(d) Poliomyelitis

2010

329. What is the most common cause of gastric outlet obstruction in a 4-week-old baby?
(a) Annular pancreas
(b) Foreign body
(c) Congenital hypertrophic pyloric stenosis
(d) Duodenal atresia

2010

330. Biochemical screening of newborn infants by heel-prick blood samples is performed by using the
(a) Tay-Sachs Card
(b) Duchenne Card
(c) Guthrie Card
(d) Maple Card

2010

331. Which is the most common cause of mortality in infants between one and twelve months of age in India?
(a) Respiratory infection
(b) Diarrhoea
(c) Malaria
(d) Pre-maturity

2010

332. The cut-off standard for defining low birth-weight babies in India is considered to be
(a) 1500 gm
(b) 2000 gm
(c) 2500 gm
(d) 2800 gm

2010

333. A child of 2 years having a respiratory rate of 46 per minute shall be classified by a health worker as
(a) very severe disease

Downloaded from www.pdf.tube

emerges around 12–15 months, but if absent by 18 months, it raises concern for language delay. Thus, the recognized alarm points (or upper limits) are walking by 15 months, single words by 18 months. Beyond those ages often warrants further developmental evaluation.

31. (d) Radiography
Kerosene (a hydrocarbon) ingestion may cause pulmonary complications if aspirated. Gastric lavage is generally contraindicated because it can provoke aspiration. Steroids are not routinely recommended, and oxygen is given if respiratory distress arises. However, a chest radiograph is typically obtained to evaluate for evidence of hydrocarbon aspiration pneumonitis—especially since the child's condition could worsen if there is hidden lung involvement. Stable appearance at presentation does not exclude developing aspiration changes.

32. (b) encephalopathy following DPT vaccine
A major neurologic complication such as encephalopathy within a strict time frame post-vaccination is considered a contraindication to repeating that same vaccine. Syncope, injection-site abscess, or mild GI upset are not absolute contra indications; they may warrant further caution but do not typically bar revaccination. With DPT (diphtheria-pertussis-tetanus), true encephalopathy (e.g. coma, prolonged seizures, or serious brain dysfunction) is the recognized red-flag event.

33. (a) 1, 2 and 3
Serious allergic reaction (anaphylaxis) to the vaccine's active components or stabilizers can occur with measles (1). Encephalopathy has been reported (rarely) after DPT (2). BCG often causes local lymph node involvement (e.g., regional adenitis) (3). While mild GI upset can accompany live-virus vaccines, gastroenteritis specifically after MMR is not typically described as a direct effect of an active viral component; it is more classically associated with rotavirus vaccine. Therefore, 4 is less clearly attributable.

34. (d) Trivandrum Development Screening Chart
While Denver II, ASQ-3, and Phatak's test are recognized developmental screening tools, the Trivandrum Development Screening Chart (TDSC) is specifically recommended for large-scale community use in India to quickly identify children 0–6 years at risk for developmental delays. It's easy to administer, covering important milestones in a chart format. The other tools are certainly valid but are more commonly employed in clinical or research settings rather than broad-based community screening.

35. (d) 1, 2, 3 and 4
Under IMCI/WHO guidelines, lower chest wall indrawing in a child >2 months typically signals pneumonia, and additional danger signs (e.g., convulsions, inability to feed/drink, and stridor at rest) upgrade to severe pneumonia or very severe disease. Stridor when calm and significant feeding difficulty imply airway compromise or severe systemic illness. The presence of any such danger sign elevates management urgency to referral or advanced treatment.

36. (d) OPV, DPT, MR and Hepatitis B vaccines
For an unionized 11-month-old, standard catch-up includes covering poliovirus (OPV), diphtheria-pertussis-tetanus (DPT), measles-rubella (MR), and Hepatitis B. The child is already nearly a year old, so giving BCG at this stage is often approached on a case-by-case basis (e.g., tuberculin testing if older). The more universally recommended immediate catch-up focuses on OPV, DPT, MR, and Hep B by 1 year. This ensures protection against four major vaccine-preventable diseases in a single visit.

37. (d) 1, 2 and 3
To prevent mother-to-child (vertical) transmission of hepatitis B, the newborn should receive both hepatitis B immunoglobulin (passive immunization) and the hepatitis B vaccine (active immunization) soon after birth. Additionally, pregnant women with very high viral loads (>200,000 IU/mL) are typically placed on antiviral therapy (e.g., tenofovir) during the third trimester. Implementing all three measures significantly reduces perinatal HBV transmission.

38. (d) Orogastric feeding

NODIA

Click Here to Buy book on Amazon

(b) severe pneumonia
(c) pneumonia
(d) no pneumonia, cough or cold

2010

334. Which one of the following is the treatment of choice in a child with inguinal hernia?
(a) Bassini's repair
(b) Shouldice operation
(c) Herniotomy alone
(d) Lichtenstein repair

2009

NODIA

335. Most common newborn rash which presents at 24–48 hours of life is
(a) Erythematous papular pustular lesions
(b) Milia
(c) Transient neonatal pustular melanosis
(d) Haemangioma

2009

336. ICDS Scheme does not include
(a) Children in the age group of 0–6 years
(b) Primary school children
(c) Pregnant women
(d) Lactating women

2009

337. Secular trends of diseases refer to
(a) Variation in occurrence across various social strata
(b) Changes in incidence as per climate
(c) Differences in incidence across different religions
(d) Changes in occurrence over long period of time

2009

****

7. (a) 1 and 3 (Angelman syndrome, Prader–Willi syndrome)
Angelman syndrome and Prader–Willi syndrome both involve imprinting errors on chromosome 15: the outcome depends on whether the maternal or paternal gene regions are deleted or mutated. Williams syndrome is caused by a deletion on chromosome 7 (not imprinting-based), and DiGeorge syndrome (22q11.2 deletion) likewise is not an imprinting defect.

8. (b) Secondary apnea
In primary apnea, a newborn typically resumes breathing when stimulated (tactile or gentle airway stimulation). If the baby fails to initiate respirations with stimulation, this indicates they have progressed to secondary apnea, a more dangerous state requiring immediate intervention (e.g., ventilation support). Tertiary apnea and cardiorespiratory arrest are not commonly used terms in neonatal resuscitation guidelines; the critical distinction is that in secondary apnea, the infant no longer responds to stimulation alone.

9. (b) B
In primary apnea, the baby can still respond to tactile stimulation (Yes). There is often an initial fall in heart rate (and usually some decline in tone), while blood pressure may remain relatively normal in that early phase. If stimulation successfully restarts breathing, the condition is labeled primary apnea. In condition B, the baby responds to touch (Yes), but HR is falling, and tone is decreasing—consistent with primary apnea.

10. (d) 3 and 4 only
Human milk is actually about 87–90% water, making statement (1) incorrect (75% is too low). Breast milk is rich in taurine and cysteine (so statement (2) is false). It does contain significant levels of essential fatty acids, including omega-6 (linoleic) and omega-3 (linolenic); the question's phrasing says omega 2 but typically this refers to the essential fatty acid families (3). High lactose indeed enhances calcium absorption (4). Hence only statements (3) and (4) are correct.

NODIA

11. (b) 2, 3 and 4
Good attachment includes:
1. Mouth wide open (covering much of the areola),
2. Chin pressing against the breast,
3. Lower lip everted (flanged outward).

While a baby's nose often stays close to the breast, the widely cited signs emphasize the baby's mouth and chin alignment with the breast tissue and everted lips. Nose at the level of the nipple can be helpful guidance, but the key recognized features for correct latch are 2, 3, and 4.

12. (c) 66%
Developmental Quotient = (Developmental Age ÷ Chronological Age) × 100. By 6 years, children can typically recite small rhymes or short stories; reciting one's full name is usually mastered by around 4 years. Thus, in the language domain, his developmental level approximates about 4 years of ability while his actual age is 6, yielding $(4 \div 6) \times 100 \approx 66\%$.

13. (d) 3 and 4
Hepatitis B vaccine is indeed recommended intramuscularly, not subcut, and giving it IM does not reduce its efficacy—so statement (1) is incorrect. The maximum time for MMR after reconstitution is usually up to 6–8 hours if refrigerated, not strictly 30 minutes—so (2) is also incorrect. Maternal antibodies do not hamper BCG's cell-mediated response (3). In many national programs (e.g., India), whole-cell DTwP is still preferred for primary schedules over acellular DTaP (4).

14. (a) It might compromise uptake of vaccine
Active diarrhea (particularly moderate to severe) can interfere with the intestinal absorption and immune response to orally administered rotavirus vaccine, diminishing its effectiveness. While intussusception is a known (though rare) adverse event linked to rotavirus vaccines, the immediate reason to delay in a child actively having diarrhea (or significant vomiting) is that

CHAPTER 03

PAEDIATRICS

1. (b) Night feeding is important for maintaining prolactin reflex.
Prolactin stimulates the production of milk by the alveolar cells, whereas oxytocin, secreted from the posterior pituitary, triggers milk ejection (let-down reflex). Night-time feeds help sustain prolactin secretion, supporting milk supply. Thus, statement (b) is correct. Statements (a) and (c) swap prolactin's and oxytocin's roles, and (d) is incorrect because oxytocin comes from the posterior pituitary, not the anterior.

2. (c) Draws a circle
The developmental progression for drawing/copying shapes typically begins with scribbling, then drawing a circle (around 2–3 years), next copying a circle (around 3 years), and later a cross (around 4 years). Draws a circle usually precedes copies a circle, and both precede drawing or copying a cross. Because a cross is a more complex shape requiring finer coordination, children master circle-making earlier, making (c) the earliest among the listed.

3. (b) 15% over the first 8 hours
In pediatric (and adult) hypertensive emergencies, overly rapid BP reduction can compromise organ perfusion. Generally, guidelines recommend lowering BP gradually by about 20–25% in the first day, with an initial target of ~10–15% in the early hours. A common approach is up to ~15% reduction over the first 8 hours, then further controlled reduction as needed. Drastic, immediate reductions (e.g., 10–15% within the first hour) pose risks of ischemic complications.

4. (c) $\geq$ 40 per minute
According to Integrated Management of Childhood Illness (IMCI) guidelines, fast breathing for a child aged 12 months up to 5 years is a respiratory rate $\geq$40 breaths per minute. In younger infants 2–12 months, $\geq$50 breaths per minute is used, and in infants <2 months, $\geq$60 per minute. Since the question specifically asks about a 2-year-old, the appropriate threshold is $\geq$40 breaths per minute.

5. (b) 1, 2 and 3
The Parkland formula calculates total fluid replacement (4 mL $\times$ body weight in kg $\times$ %TBSA burned) for the first 24 hours (1, 2). In children, maintenance fluids must be added separately for normal metabolic requirements (3). Classic teaching is to give half the Parkland-calculated volume in the first 8 hours from time of burn (not 6 hours), then the remaining half over the subsequent 16 hours. Hence statement (4) is incorrect.

6. (d) Either parent is a carrier of translocation between two chromosome 21
When a Robertsonian 21q21q translocation exists in a parent, every gamete they produce carries extra chromosome 21 material, making all offspring inherit an extra 21—thus 100% risk of Down syndrome. Ordinary balanced translocations involving 14;21 or other combinations carry a variable risk but not 100%. If either parent specifically has 21;21 translocation, the chance of Down syndrome in each child is essentially guaranteed.

Downloaded from www.pdf.tube

until pregnancy is confirmed (option b) may be too late, as neural tube closure occurs very early. Zinc supplementation is not the standard prophylaxis for neural tube defects.

23. (b) OPV 2
Historically, the Sabin oral polio vaccine (OPV) includes three attenuated poliovirus serotypes (1, 2, and 3). Of these, type 2 (OPV2) has been most commonly implicated in vaccine-associated paralytic polio (VAPP) and circulating vaccine-derived strains. Because of this risk (and the near-eradication of wild type 2), global immunization initiatives have shifted to a bivalent OPV (types 1 & 3) in many regions, removing the type 2 component to reduce VAPP and cVDPV.

24. (a) Dysgraphia
A specific learning disability refers to difficulties in reading (dyslexia), writing (dysgraphia), or mathematics (dyscalculia), among other cognitive areas, not due to overall intellectual disability or other neurological disorders. Dysgraphia is specifically an impairment in written expression—handwriting, spelling, or composition. Dystonia (b) is a movement disorder, dysthymia (c) is a persistent depressive mood disorder, and dysphoria (d) typically refers to a state of unease or dissatisfaction in mood.

25. (b) positive pressure ventilation using 30% oxygen
According to neonatal resuscitation guidelines, once you have completed the initial steps (warming, positioning, drying, stimulating) in a preterm baby who remains apneic or gasping, the next step is to begin positive pressure ventilation (PPV). For preterm infants (<35 weeks), recommended starting oxygen concentration is typically 21–30% rather than 100%, aiming to avoid hyperoxia. Chest compressions are indicated only if the heart rate remains <60 bpm after adequate ventilation.

26. (a) 70%
The Developmental Quotient (DQ) compares a child's developmental age to chronological age. Many standard guidelines use 70% as a cutoff—if a child's DQ falls below 70, it signals significant delay requiring thorough evaluation. This threshold is analogous to an IQ <70 in older children, suggesting a marked developmental lag. Children above 70% but below 85% may still need monitoring, but 70% is the widely accepted red-flag level for more urgent assessment.

27. (c) 2 months
Newborns can briefly fix on a face or bright object, but reliable, consistent visual fixation and tracking are usually established by about 1 to 2 months of age. By 2 months, an infant is expected to follow a moving object smoothly across midline. If an infant has not achieved this skill by 2 months, further examination may be indicated. Birth or 1-month-old infants may have only partial or inconsistent tracking, and 3 months would be well outside the usual window.

28. (c) 6–7 months
Stranger anxiety typically appears around the mid-first year (often cited as 6–9 months), reflecting the infant's recognition of familiar vs. unfamiliar faces. Although many textbooks mention it most prominently at around 7 or 8 months, it can begin as early as 6 months. Hence, 6–7 months best marks the usual onset. By 8–9 months, the behavior is already quite established. Before 4 or 5 months, infants are usually not discriminating enough to show strong stranger wariness.

29. (d) 1, 2 and 3
By around 9 months, infants typically demonstrate an inferior (immature) pincer grasp, using the pads of the thumb and index finger (statement 1). They often start producing babbling or repetitive bisyllabic sounds like mama, dada, though not always with true meaning (statement 2). Many will also respond socially, including waving bye-bye (statement 3). All three are standard 9-month milestones.

30. (b) 15 months, 18 months respectively
Most toddlers walk independently by around 12 months, but 15 months is considered the upper limit of normal for walking alone. Likewise, using single meaningful words generally

NODIA

the vaccine may not be retained or adequately taken up by the gut. Therefore, (a) is the best explanation among the choices given.

15. (a) 1, 2, 4, 5 and 7
According to the WHO-UNICEF Nurturing Care Framework, five interrelated components are: Good Health (1), Adequate Nutrition (2), Responsive Care giving (4), Security & Safety (7), and Opportunities for Early Learning (5). Breast feeding (3) and immunization (6) are vitally important for child health but are typically categorized under these broader headings. Supplementation (8) is more specific.

16. (d) Iron orally 2 mg/kg/day up to 1 year of age
A 2000 g newborn is considered low birth weight (LBW). Guidelines recommend prophylactic iron supplementation of ~2 mg/kg/day starting from early infancy until at least 12 months for LBW or preterm infants to prevent iron deficiency. Although vitamin D supplementation (often 400 IU/day) is also important, the specific correct statement among the listed options is to continue iron 2 mg/kg/day up to 1 year, which aligns with WHO and other pediatric guidelines for LBW babies.

17. (d) 1, 2 and 3
Term babies with intrauterine growth restriction (IUGR) are predisposed to multiple metabolic and physiological challenges. Hypothermia occurs due to limited subcutaneous fat and poor thermoregulation (1). Hypoglycemia is frequent from inadequate glycogen stores (2). Hypocalcemia can also develop, particularly in severely compromised neonates (3). All three are recognized complications of IUGR births.

18. (b) Birth weight is regained by 7–10 days of age.
It is normal for newborns to lose up to ~5–10% of their birth weight in the first week. By about 7–10 (up to 14) days of life, most healthy infants regain their birth weight. Option (a) slightly confuses the timing—most of the initial weight loss occurs in the first week. Losing 12–15% (d) is usually considered excessive. Option (c) is too narrow (within the first week may happen, but standard teaching is ~7–10 days).

19. (c) red pellets
In standard developmental screening, small objects—often referred to as red pellets or similarly sized items—are best for assessing a baby's evolving grasp. By around 9 months, infants begin to demonstrate an early pincer grasp (using thumb and index finger) when picking up small pellets. Offering larger objects (such as a ring or cube) primarily tests the palmar grasp seen at earlier ages. Hence, red pellets most directly evaluate the progression to fine/pincer grasp.

20. (b) Anti epileptic ingestion
Activated charcoal adsorbs many drugs but has poor affinity for metals (like iron or lithium), caustics (corrosives), or alcohols. Anti epileptics (e.g., phenobarbital, phenytoin, carbhemoglobin) can be bound effectively by charcoal, reducing their gastrointestinal absorption if given promptly after ingestion. In contrast, iron, corrosives, and lithium do not significantly bind to activated charcoal, making it largely ineffective in those poisonings.

21. (a) 1, 2 and 3
Autism spectrum disorder can occur in several known genetic syndromes. Fragile X (2) is one of the most common single-gene causes of autism-like features, Angelman syndrome (1) often includes severe developmental issues with possible autistic traits, and Tuberous sclerosis (3) has a recognized association with neurohypophysial abnormalities, including autism. Williams syndrome, on the other hand, is typically characterized by a very social, outgoing personality—less aligned with autism features.

22. (a) Folate supplements, from one month before conception to three months after
Folic acid supplementation is crucial for preventing neural tube defects. Guidelines advise starting at least one month prior to conception (to ensure adequate folate status at the time of neural tube formation) and continuing through at least the first 12 weeks (i.e., three months after conception). Waiting

Click Here to Buy book on Amazon

A 30-week preterm infant weighing only 1.2 kg typically lacks the coordination and strength for direct breast feeding or spoon-feeding. The recommended method is orogastric (or sometimes mesogastric) tube feeding, ensuring adequate nutrition while minimizing the risk of aspiration. Intravenous fluids alone do not supply adequate enteral nutrition, and direct breast feeding/spoon-feeding is generally not feasible for very preterm or very low-birth-weight infants initially.

39. (a) Oragastric or nasogastric tube feeding
This preterm baby shows signs of feeding incoordination (spillage, coughing), raising concern for aspiration if oral feeds continue. The usual step is to switch to safer tube feeding (orogastric or nasogastric) until the infant's suck-swallow-breathe coordination matures. IV fluids alone do not suffice for nutritional needs, and a gastrostomy is more invasive. Breast feeding is not appropriate until the baby can handle oral feeds safely.

40. (c) 8 months
Around 6 months, infants typically start sitting without support (though it can be 6–7 months). By about 8–9 months, babies often produce babbling with repeated syllables like ma-ma, ba-ba. They also become more adept at localizing sounds in multiple directions. Four months is too early for stable sitting; 10 months is usually beyond the first distinct babbling stage. Hence 8 months is the best fit for these developmental milestones.

41. (c) 8
Using a pediatric adaptation of the Glasgow Coma Scale (or the standard adult scoring if approximated):
1. Eye opening to pain → 2 points
2. Verbal: moans/sounds to pain → 2 points
3. Motor: withdrawal to pain → 4 points

Summing these yields a total GCS of 8. This indicates significant impairment and the need for close neurological monitoring and possible airway protection.

42. (c) Clinical jaundice since birth
Physiological neonatal jaundice typically appears after the first 24 hours (commonly day 2 or later). If jaundice is evident since birth or within the first 24 hours, it strongly suggests a pathologic process (e.g., hemolytic disease, infection, genetic cause). While pallor, hepatosplenomegaly, or cephalhematoma might also raise suspicion, the earliest and most definitive red flag for pathological jaundice is its onset at or near birth.

43. (a) Clinical criteria only
Autism Spectrum Disorder (ASD) is chiefly a clinical diagnosis, guided by detailed developmental history, behavioral observations, and standardized diagnostic criteria (e.g., DSM-5). While genetic tests or numbering may sometimes help identify associated conditions or rule out other pathologies, they are not required for the core diagnosis. Thus, diagnosis relies on clinical evaluation of social communication challenges, restricted interests, and repetitive behaviors.

44. (a) Nevirapine
Under many prevention of mother-to-child transmission (PMTCT) protocols, single-dose nevirapine is administered to newborns (and mothers) to significantly reduce vertical HIV transmission. Other drugs, such as Stavudine, Indinavir, or Ritonavir, are antiretroviral agents but are not typically used in that immediate single-dose newborn prophylaxis program.

45. (d) Human milk contains omega 2 and omega 6 (very long chain) fatty acids
Human breast milk has a lower protein content than cow's milk, so (b) is incorrect. It actually does contain taurine and cysteine (c is incorrect). Lactose content of human milk averages around 7 g/dL, not 5 g/dL (making (a) misleading). One clear advantage of breast milk is its supply of long-chain polyunsaturated fatty acids (e.g., omega-6 [arachidonic acid] and omega-3 [DHA]), crucial for brain and retinal development. Hence statement (d) is the most accurate.

NODIA

46. (a) 1, 2 and 3

By two years, children typically have a vocabulary of around 50 (to 200) words, start combining two words (mommy go), and may begin using simple pronouns like me or mine. They do occasionally echo new or interesting words. Explicitly stating their own name on request is usually more consistent with a slightly older child (closer to age 3). Hence items 1, 2, and 3 align best with typical 2-year-old language milestones.

47. (a) 1, 2 and 3
Denver II (DDST), Ages & Stages Questionnaire (ASQ), and Parents' Evaluation of Developmental Status (PEDS) are widely recognized screening tools for early detection of developmental delays. The Bayley Scales of Infant and Toddler Development, however, is more comprehensive and typically considered an assessment or diagnostic tool rather than a routine screener. Thus 1, 2, and 3 are screening instruments; 4 is more detailed.

48. (b) fIPV is one-fifth of the I/M dose of IPV
Fractional IPV (fIPV) given intradermally uses about 1/5 the full intramuscular IPV dose. This dose-sparing strategy has been adopted in some settings to extend vaccine supplies while maintaining adequate immunogenicity. Hence statement (b) is the recognized fraction.

49. (c) The grass roots health worker makes 6 home visits
Under the Home-Based Care of Young Child (HBYC) initiative, the ASHA worker (or community health volunteer) conducts multiple home visits—commonly 6—at key intervals from about 42 days (postnatal) through 15 months of age to monitor growth, nutrition, immunization, and overall health. This is an expansion of the earlier Home-Based Newborn Care (HBNC). The other statements listed are either incorrect specifics or incomplete time lines.

50. (b) Respiratory rate more than 60/min
A newborn's normal respiratory rate is about 30–60 breaths per minute. Exceeding 60/min can signal respiratory distress or infection and is considered a significant warning sign. A mild drop in temperature between 36.0–36.5 °C is borderline low (mild hypothermia), but guidelines commonly highlight <36 °C as dangerous. A heart rate of 120/min is within normal range (120–160 bpm). Losing up to 7–10% body weight in the first week is physiologic and usually regains by 2 weeks.

51. (b) 2 and 3
Permanent canines (2) and premolars (3) typically erupt around 10–12 years of age in girls, which often overlaps with the timing of menarche (the first menstrual period, commonly age ~11–13). Central/lateral incisors and first molars appear much earlier in childhood, while second/third molars tend to erupt later. Hence canines and premolars correspond most closely to the average age of menarche.

52. (c) Oral N-acetyl cysteine
Acetylcysteine (NAC) is the specific antidote for paracetamol (acetaminophen) toxicity. If given within 8–10 hours of ingestion, it drastically reduces the risk of hepatotoxicity by replenishing glutathione stores. Although activated charcoal may be considered if the child presents very early (within ~1 hour), NAC remains the key initial step for any potentially significant ingestion, especially when beyond one hour. Induced vomiting and alkaline diuresis are not standard in paracetamol overdose.

53. (d) Mefenamic acid
Mefenamic acid (an NSAID) can, in rare instances, cause methemoglobinemia—where hemoglobin is converted to methemoglobin that cannot bind oxygen normally. This leads to low oxygen saturation unresponsive to supplemental oxygen, while the measured PaO_2 remains normal on arterial blood gas (a classic saturation gap). Drugs like dapsone, local anesthetics, nitrates, and certain NSAIDs are implicated. The other listed medications do not commonly produce this acute methemoglobinemia picture.

54. (a) 1, 2 and 3
Core features of Autism Spectrum Disorder include onset in early childhood (typically

Downloaded from www.pdf.tube

before age 3), communication deficits (both verbal and nonverbal/gestural), and restricted, repetitive behaviors. Tangential speech alone is not a defining criterion; ASD communication deficits vary widely but center on difficulty with reciprocal social interaction and language skills. Thus 1, 2, and 3 capture the essential ASD features.

55. (a) DPT, Hepatitis B, Measles, MMR vaccines
In routine immunization storage (especially in a standard refrigerator rather than a specialized ILR/freezer system), the top rack at about 2–8 °C (or 4–10 °C, per the question) is generally reserved for vaccines that are freeze-sensitive (e.g., DPT, Hepatitis B) but need refrigeration. Although measles and MMR are freeze-dried and can tolerate freezing, they are commonly placed in the refrigerator compartment in practice. By contrast, BCG and OPV are often stored in the freezer compartment or lower rack depending on local guidelines.

56. (c) RBSK (Rashtriya Bal Swasthya Karyakram)
The Rashtriya Bal Swasthya Karyakram (RBSK) focuses on early detection and management of the 4 Ds: Defects at birth, Diseases in children, Deficiencies, and Developmental delays (including disabilities). Under this program, children up to 18 years of age are screened at schools/health centers, aiming to intervene early. IMNCI targets childhood illness management; ICDS addresses overall child development and nutrition; and JSSK ensures free services for pregnant women and sick newborns.

57. (d) DiGeorge syndrome
DiGeorge syndrome (22q11.2 deletion) is classically associated with congenital heart defects (often conotruncal anomalies), thymic aplasia or hypoplasia (leading to T-cell deficiency), parathyroid aplasia (hypocalcemia), and craniofacial anomalies including cleft palate. These are well-known hallmarks that differentiate DiGeorge syndrome from the other listed genetic conditions.

58. (d) Therapeutic lumbar puncture
In a child with potential head injury and raised intracranial pressure (ICP), one must avoid interventions (like a lumbar puncture) that could precipitate cerebral herniation if ICP is significantly elevated. Mannitol or hypertonic saline may be used to reduce ICP, and elevating the head end helps venous drainage. A therapeutic lumbar puncture is contraindicated in cases of possible acute intracranial bleeding or high ICP for risk of sudden pressure shifts.

NODIA

59. (b) 30 : 2
Current pediatric BLS guidelines align with adult practice when only one rescuer is available: 30 compressions followed by 2 rescue breaths. The 15:2 ratio is used only when two trained rescuers are present for infants or children. The single rescuer must maintain a straightforward ratio (30:2) to keep compressions going with minimal interruption for ventilations.

60. (d) Eye opening to pain, cries to pain and extension to pain
In the pediatric-modified GCS, E2 indicates eye opening to pain (not to speech, which would be E3). V3 often corresponds to cries or inappropriate verbal response for a young child. M2 signifies extension (decerebrate response) to painful stimuli rather than abnormal flexion (which is M3). Thus eye opening to pain, cries to pain, and extension to pain best matches E2V3M2.

61. (c) The abdomen will be warm, but the hands and feet will be cold.
In mild hypothermia (often referred to as cold stress), peripheral vasoconstriction keeps the core warmer than the extremities. Hence the baby's trunk (abdomen) typically remains warm, but the hands and feet feel cold to touch. Moderate or severe hypothermia would extend the cooling centrally. The initial sign is usually cooler extremities with a relatively warm abdomen.

62. (d) Congenital hypothyroidism
Prolonged uncovenanted (indirect) hyperbilirubinemia beyond the neonatal period can result from congenital hypothyroidism. Hypothyroidism reduces bilirubin metabolism via lower activity of the UDP-glucuronyl transferase, leading to

109. (d) There is interference with its effect due to maternal antibodies
BCG (Bacillus Calmette–Guérin) vaccine provides 50–80% protection against severe pediatric TB forms (miliary, meningeal) and works chiefly by stimulating cell-mediated immunity. Although its efficacy against other mycobacterial infections (e.g., leprosy) can be variable, it is not reliably protective against them. Unlike many other vaccines, BCG administered at birth is not significantly hindered by maternal antibodies, which is why it can be given in the neonatal period. Therefore, statement (d) about maternal antibody interference is incorrect.

110. (a) Live attenuated organism
Available rotavirus vaccines (e.g., Rotarix, RotaTeq) are typically live attenuated viral vaccines given orally to infants. They replicate in the gut and induce immunity against subsequent rotavirus infections, which otherwise can cause severe gastroenteritis in young children. Killed vaccines, toxoids, and subunit formulations are different vaccine types used for other pathogens (e.g., inactivated polio, tetanus toxoid, hepatitis B surface antigen).

111. (b) 4–5 %
In Down's syndrome due to a Robertsonian translocation, the recurrence risk depends on which parent carries the translocation. Maternal carrier status confers a higher risk (often around 10–15 %), whereas paternal carrier status typically carries a lower but still significant risk, often quoted around 2–5 % (commonly approximated as 3 %). Among the answer choices, 4–5 % is closest to the established figure. Therefore, families with a father who is a translocation carrier are counseled about this moderate recurrence risk.

112. (c) Ultrasound (KUB), MCU, and DMSA scan
In a high-risk infant (under 1 year, with neurological issues such as CP) who has a first UTI, thorough imaging is recommended to detect structural abnormalities, vesicoureteral reflux, or renal scarring. Commonly, guidelines advise:

1. Ultrasound (KUB) to identify anatomical anomalies.
2. MCU/VCUG (Micturating Cystourethrogram) to detect vesicoureteral reflux.
3. DMSA renal scan to detect renal parenchymal involvement or scarring.

Hence, the comprehensive workup usually includes all three investigations in this scenario.

113. (d) MMR
Mission Indradhanush in India aims to increase vaccine coverage against certain key diseases. It traditionally includes vaccines such as BCG, OPV (oral polio vaccine), DPT (diphtheria-pertussis-tetanus), measles, hepatitis B, Hib, and some region-specific vaccines (e.g., Japanese encephalitis). MMR (measles-mumps-rubella) is not part of the standard list under Mission Indradhanush. Instead, the universal schedule has measles (or measles-rubella in some programs), but typically not the triple-valent MMR.

114. (d) Trientine
Standard pharmacotherapy for ADHD includes stimulants (e.g., amphetamine salts, methylphenidate) and non-stimulant agents such as atomoxetine. Trientine, on the other hand, is a copper-chelating agent used primarily in managing Wilson's disease. It has no role in the treatment of ADHD. Thus, among the options given, trientine is the one not employed in ADHD management.

115. (c) Insulin infusion
These ECG changes (peaked T waves, widened QRS) strongly indicate severe hyperkalemia, likely from muscle injury and potassium release. Immediate therapy includes:

1. IV calcium (to stabilize cardiac membranes)
2. Insulin (with glucose) to shift potassium intracellularly
3. Other measures like beta-2 agonists or sodium bicarbonate if acidotic.

Although calcium is typically the first agent for cardioprotection, it is not listed here. Among the provided options, insulin infusion (plus dextrose) is the most urgent step to lower serum K^+.

Click Here to Buy book on Amazon

Acute salicylate (aspirin) overdose typically causes an initial respiratory alkalosis (due to direct respiratory center stimulation) but then leads to a high-anion-gap metabolic acidosis, especially in children. Hyperkalemia is not typical of aspirin poisoning; hypokalemia may occur. Rhabdomyolysis or a markedly widened QRS complex are not classic features of salicylism. The hallmark is the mixed respiratory alkalosis plus metabolic acidosis, with potentially life-threatening acidemia in advanced stages.

72. (b) Autism Spectrum Disorder
Autism Spectrum Disorder (ASD) is characterized by deficits in social communication (reduced eye contact, unresponsiveness to name) and often repetitive behaviors or sensory peculiarities (toe walking, for instance). Delayed speech, decreased joint attention, and poor social interaction are core red flags. While ADHD involves inattentiveness, it does not typically manifest with marked social-communication deficits or toe walking. Cerebral palsy primarily affects motor development. Social Communication Disorder lacks the restricted/repetitive patterns often seen in ASD.

73. (c) Hyperactivity
Atomoxetine is a selective norepinephrine reuptake inhibitor originally indicated for Attention Deficit Hyperactivity Disorder (ADHD). In some children on the autism spectrum who display prominent hyperactivity and inattention, atomoxetine can help reduce those symptoms. It is not primarily targeted at anxiety, sleep disturbances, or repetitive behaviors, which may require other interventions or medications. Thus, it is most directly used to manage hyperactivity/impulsivity within the context of ASD.

74. (b) 6 weeks and 14 weeks
Under India's current National Immunization Program, fractional (intradermal) IPV doses are administered at 6 and 14 weeks of age alongside the oral polio vaccine (OPV) schedule. This two-dose fractional approach is recommended to enhance early immunity and eventually reduce polio transmission risks. The older approach or other country schedules may vary, but for India, 6 weeks and 14 weeks matches the standard fractional IPV practice.

75. (d) 90%
Varicella (chickenpox) vaccine, if administered within 3 (and up to 5) days of exposure, has demonstrated around 90% efficacy in preventing clinical disease or substantially reducing its severity. This makes timely vaccination an excellent strategy for post-exposure prophylaxis in susceptible individuals. Efficacy declines if given much later than 72–120 hours after contact, reinforcing the benefit of early intervention.

76. (a) Dyslexia
Dyslexia is a specific learning disorder primarily affecting the ability to read, spell, and decode written language. It presents with trouble recognizing and processing letters and words, yet oral comprehension and general intelligence are typically not impaired. Autism spectrum disorder involves broader social-communication deficits, Rett syndrome primarily affects girls and includes regression after normal development, and ADHD focuses on inattention/hyperactivity. The key pointer here is difficulty with word recognition and spelling in the presence of normal listening comprehension.

77. (d) 'Time out'
During a tantrum, the recommended approach is to remain calm and consistent. Time out briefly removes the child from the immediate environment and attention, discouraging the undesirable behavior. Giving in to demands reinforces tantrums. Physical punishment and scolding can escalate aggression and do not teach self-regulation. By contrast, a brief, structured time out (in a safe, dull space) can help the child calm down and learn that tantrums are not rewarded.

78. (a) Rheumatic heart disease
RBSK (Rashtriya Bal Swasthya Karyakram) focuses on early detection and management of 4 Ds—Defects at birth, Diseases in children, Deficiencies, and Developmental delays. Among the conditions covered in its expanded list is Rheumatic Heart Disease (RHD), recognized

Downloaded from www.pdf.tube

thigh in infants), in a 0.5 mL dose containing 10 μg of hepatitis B surface antigen. Administration subcutaneously is not the standard recommendation for hepatitis B immunization, and adult formulations differ in volume and antigen content (often 1.0 mL containing 20 μg).

95. (b) It contains at least 3 pathogenic pertussis antigens
Acellular pertussis vaccines (e.g., DTaP) typically include purified components of Bordetella pertussis such as pertussis toxin (PT), filamentous hemagglutinin (FHA), pertactin, and possibly fimbrial antigens—at least three of these are included for adequate immunogenicity. While acellular vaccines generally have fewer side effects, their efficacy is comparable (or slightly lower in some studies) than whole-cell vaccines—not definitively superior. Non-fimbrial protein is not always mandatory, but PT, FHA, and possibly others are standard.

96. (d) Annual thyroid function test from birth to 2 years
Children with Down syndrome are at high risk of hypothyroidism. Many guidelines recommend regular thyroid function tests starting at birth or soon after, then every 6–12 months in early childhood to detect and treat hypothyroidism promptly. Hearing screenings, vision assessments, and growth monitoring are also important, but a specifically annual TSH check up to at least 2 years (and often beyond) is widely advised.

97. (b) Constitutional growth delay
Constitutional growth delay (CGD) is characterized by a slower early growth pattern with delayed bone age and delayed puberty, but a normal (albeit late) growth spurt that eventually helps them catch up. They often show normal growth velocity while tracking below the standard percentiles. Familial short stature usually has a normal bone age with a consistent, low percentile tracking that reflects parental genetics. Growth hormone deficiency more severely impairs growth velocity.

98. (a) Fast breathing (50 breaths or more per minute)
Under IMNCI guidelines, an infant up to 2 months is classified with possible serious bacterial infection if there is fast breathing of 60 breaths/min or more, severe chest in drawing, temperature instability (<35.5°C or >37.5°C), or lethargic movement. A threshold of 50 breaths/min is used in older infants (2–12 months) for pneumonia. Hence, 50 breaths/min does not meet the fast breathing cutoff for a young infant under 2 months, making option (a) incorrect for that age bracket.

99. (a) ≥60 beats per minute
In neonatal resuscitation guidelines, chest compressions are indicated if the infant's heart rate remains below 60 bpm despite adequate ventilation. Once the heart rate rises to ≥60 bpm, chest compressions can typically be stopped, although other supportive measures (especially adequate ventilation) may still be required until the heart rate surpasses 100 bpm. The threshold of 60 bpm distinguishes profound bradycardia necessitating compressions from mere respiratory support or positive-pressure ventilation for moderately low heart rates.

100. (c) Rectal suction biopsy
Failure to pass meconium, abdominal distension, and explosive stool on rectal examination strongly suggest Hirschsprung disease (congenital aganglionic megacolon). The definitive diagnostic test is a rectal suction biopsy, which identifies the absence of ganglion cells (enteric nervous system cells) in the submucosal (Meissner) and myenteric (Auerbach) plexuses. While anorectal manometry and contrast studies can be helpful screening tools, the gold-standard for confirming Hirsch sprung disease is demonstrating the lack of ganglion cells on a rectal biopsy.

101. (d) Reduction in hyperbilirubinemia
Delayed umbilical cord clamping confers several hematologic benefits to the newborn: higher hemoglobin/hematocrit, increased iron stores, and a lower incidence of iron-deficiency anemia in early infancy. It may also slightly heighten the risk of hyperbilirubinemia because of the greater red blood cell mass that eventually breaks down. Therefore, reduced hyperbilirubinemia is not

NODIA

can predispose to hyperbilirubinemia (as the collected blood breaks down), and usually resolves over several weeks. The key error here is describing it as subcutaneous, whereas it is specifically beneath the periosteum.

87. (c) Neonate on mechanical ventilation
Minimal Enteral Nutrition (MEN), or trophic feeding, involves giving very small volumes of milk to stimulate gut development without risking feeding intolerance or NEC. A hemodynamically stable neonate on mechanical ventilation can typically tolerate these small feeds. In contrast, a neonate with active sepsis plus sclerema, ongoing NEC, or symptomatic hypoglycemia requiring urgent IV correction would generally not be started on MEN until stabilized.

88. (a) Bromocriptine
Primogenitary is a dopamine agonist that inhibits prolactin secretion, thereby suppressing lactation. It is used to stop breast milk production or in conditions like protactinium. Since we do not want to halt or impair milk production in a breast feeding mother, primogenitary is effectively contraindicated if she intends to continue breast feeding. Chlorpromazine, acyclovir, and morphine each have considerations but are not outright contra indications for breast feeding in typical therapeutic doses.

89. (c) Transient tachypnea of the newborn
Transient tachypnea of the newborn (TTN) commonly appears in the first day of life with tachypnea due to delayed clearance of fetal lung fluid. Chest X-ray findings typically show hyperinflation, prominent perihilar streaking, and fluid in the interlobar fissures. Congenital lobar emphysema or diaphragmatic hernia present with more dramatic or asymmetric findings, and a tracheoesophageal fistula typically manifests feeding/respiratory distress or an inability to pass an NG tube, not uniform hyperinflation.

90. (c) 9
By about 3 years of age, a child typically can ascend stairs with alternate feet and copy a circle. Around this same developmental stage, they are able to stack approximately 9 cubes in a tower without it toppling. Fewer blocks (5 or 7) correspond to slightly younger motor milestones, whereas stacking more than 10 is often observed a bit later. Thus, building a tower of 9 blocks matches the described developmental abilities.

91. (a) Hydroxocobalamin
Burning plastics can release cyanide among other toxic gases. Cyanide poisoning impairs cellular respiration, leading to severe lactic acidosis and respiratory distress. Hydroxocobalamin (a form of vitamin B12) binds cyanide ions to form cyanocobalamin, which can be excreted. Amyl nitrite and sodium nitrite are older components of cyanide antidote kits (they induce methemoglobin formation to trap cyanide), while N-acetyl cysteine is used for acetaminophen toxicity and other conditions, not primarily for cyanide.

92. (d) Clinodactyly
Clinodactyly refers to an in curving (usually inward) of a finger, most commonly the fifth (little) finger, often because of a wedge-shaped deformity in the phalanx. It can occur in isolation or be associated with genetic syndromes (e.g., Down syndrome). Camptodactyly is a flexion deformity at the proximal interphalangeal joint, brachydactyly involves shortening of fingers, and syndactyly is fusion of digits.

93. (b) Metabolic alkalosis
A classic description of infantile hypertrophic pyloric stenosis includes projectile, non-bilious vomiting, an olive-shaped palpable mass in the epigastrium, and persistent hunger after emesis. The vomiting of gastric contents leads to loss of acid (hydrochloric acid), generating a hypochloremic, hypokalemic metabolic alkalosis. The blood gas typically shows elevated bicarbonate and alkalosis, consistent with chronic gastric acid losses.

94. (b) 0.5 mL dose with 10 microgram of antigen intramuscularly
For routine childhood immunization, the pediatric hepatitis B vaccine is administered intramuscularly (usually in the anterolateral

Click Here to Buy book on Amazon

persistent neonatal jaundice. Dubin-Johnson and Rotor syndromes are predominantly conjugated hyperbilirubinemia, and while galactosemia can cause both direct and indirect hyperbilirubinemia, it more typically presents with significant liver dysfunction and conjugated hyperbilirubinemia.

63. (d) Tracheoesophageal fistula
Polyhydramnios arises when the fetus cannot swallow amniotic fluid normally, often due to an esophageal obstruction. After birth, drooling, frothing at the mouth, and choking with the first feeds suggest an inability to pass fluid into the stomach. Tracheoesophageal fistula (especially with esophageal atresia) is classic for these findings: fluid or milk cannot pass into the GI tract and may instead enter the trachea, leading to choking and respiratory distress.

64. (a) 4 weeks
A social smile (smiling back responsively) typically emerges around 6 weeks of age. Before that time—at around 4 weeks—an infant may follow a caregiver's face and watch intently but not truly smile back yet. Thus, if the baby is looking intently but still not smiling socially, 4 weeks is the most plausible age. By 6–8 weeks, most infants reliably demonstrate a social smile.

65. (c) 24 months
A mature pincer grasp (tip-to-tip) typically appears close to 1 year, but building a tower of ~6 blocks and making basic strokes with a pencil both fall around 2 years (24 months). An 18-month-old usually stacks fewer blocks (3–4). By 24 months, children often can stack 6 or more blocks and produce simple scribbles or short pencil lines. At 36 months, they can make 9–10 block towers and more complex drawings.

66. (a) Scribbling
Creeping upstairs and stacking two blocks suggest an age range of around 15 months. By that time, children commonly begin scribbling spontaneously when given a crayon. Running usually appears a bit later (closer to 18 months or beyond), and using 10 words may occur around 18 months. Exploring drawers or more complex manipulative tasks also come along but typically after simple scribbling is well established.

67. (b) Copy a cross
Riding a tricycle, hopping on one foot (but not skipping), and descending stairs with alternating feet are typical of a 4-year-old. By this age, the child usually can copy a cross (+). Copying a triangle or rectangle is more advanced (often closer to 5–6 years). Build a gate with blocks is less standardized and might be possible even earlier. Developmentally, a 4-year-old's pencil skills typically include drawing a cross and beginning to draw simple figures.

NODIA

68. (d) Copying a circle
By 2 years of age, children can typically build a tower of about 6 blocks, turn doorknobs, and unscrew lids with some dexterity. However, accurately copying a circle is generally expected around 3 years old. At 2, scribbling is common, but forming a proper circle on request usually awaits more advanced fine-motor and visual-motor coordination (around 3 years).

69. (a) The infant can bring his hands to the midline.
Around 4 months, babies typically have good head control and often bring their hands together at midline. They also begin to grasp and bat at objects with both hands but may not yet be consistently reaching out one-handed with fine precision. Monosyllables like da/pa commonly appear closer to 6 months or beyond. Partial head control is achieved by around 2–3 months, so (b) is not age-appropriate at 4 months.

70. (c) Lund and Browder chart
For pediatric burn assessments, the Lund and Browder chart is preferred because it accounts for changes in body surface area proportions with growth. The Rule of Nines, commonly used in adults, is less accurate in children. Parkland formula calculates fluid requirements rather than body surface estimation. The Lund and Browder method remains the most reliable, age-adjusted tool for burn percentage in children under 15.

71. (d) Metabolic acidosis

typically an advantage of delayed clamping; in fact, it may lead to mildly increased bilirubin levels in some infants.

102. (d) Initial steps of neonatal resuscitation
Current neonatal guidelines advise that even with meconium-stained fluid, if the newborn has depressed respiration (i.e., is not vigorous), one should proceed with the standard steps of neonatal resuscitation (warming, drying, clearing the airway as needed, assessing breathing/heart rate) rather than automatically intubating or suctioning below the cords. Routine intrapartum or immediate postnatal tracheal sectioning of non-vigorous infants has not shown clear benefit and can delay essential ventilation. Thus, the priority is to follow the initial resuscitation algorithm.

103. (b) Triangle
Developmental drawing milestones follow a general sequence: a 3-year-old can copy a circle; by 4 years, a cross (or plus sign); and by about 5 years, a triangle. Children progress from simpler shapes (circles, crosses) to more complex figures (triangles, squares, and rectangles) as their motor coordination and visual-spatial skills improve. While a 3-year-old might scribble circles, a child of 5 typically can manage the three straight sides of a triangle, making (b) the best match.

104. (c) Drowsiness after the episode
Breath holding spells are brief episodes in children triggered by emotional upset or pain, leading to apnea (holding breath), possible cyanosis or pallor, and sometimes brief myoclonic or stiffening movements (anoxic seizure-like activity). However, children typically recover quickly once normal breathing resumes and do not show a prolonged postictal drowsy state. Marked drowsiness or confusion afterward would be atypical for a simple breath holding spell and instead suggests a true seizure or another etiology.

105. (c) 2 years
When assessing growth and developmental milestones in preterm infants, clinicians adjust for prematurity by using the corrected (post-conceptional) age rather than the chronological age. Typically, this correction is recommended up to about 2 years of age. By this point, many premature infants have caught up to their peers in terms of motor and cognitive development, and the need for ongoing adjustment of age usually decreases. After 2 years, milestones are generally interpreted with the standard charts for chronological age.

106. (c) Intake of Phenytoin
Neural tube defects (NTDs) are strongly linked to poor glycemic control in diabetic mothers, radiation exposure, and maternal folate deficiency. Certain anti convulsants (most notably valproic acid and carbamazepine) also heighten NTD risk. While phenytoin can cause fetal hydantoin syndrome with craniofacial and nail anomalies, it is less classically associated with an increased incidence of spina bifida compared with valproate. Therefore, among these listed options, (c) intake of phenytoin is not recognized as a major risk factor for NTDs.

107. (b) Patau syndrome
Trisomy 13, termed Patau syndrome, features severe craniofacial anomalies, polydactyly, cardiac defects, and profound developmental impairment. Trisomy 18 is known as Edwards syndrome, and Turner syndrome (45,X) affects females with short stature, streak ovaries, and webbed neck, but no extra chromosome. Williams syndrome is a deletion on chromosome 7 (elastin gene). Thus, Patau syndrome is the correct eponym for Trisomy 13.

108. (a) The upper part of the esophagus ends blindly and the lower end is connected to the trachea by a fistula
In about 85–90% of cases, the most common variant (Type C) of tracheoesophageal fistula (TEF) involves a blind-ending upper esophageal pouch and a fistula connecting the lower esophagus to the trachea. Other variants exist but are much less frequent (e.g., isolated esophageal atresia without fistula, H-type fistula with no atresia, etc.). Infants with TEF often present with excessive salivation, drooling, choking during feeds, or respiratory distress due to aspiration.

Downloaded from www.pdf.tube

Gastric lavage is contraindicated in corrosive (caustic) poisoning due to the risk of perforation and further esophageal damage, and generally avoided with hydrocarbons (such as turpentine) because of aspiration risk and limited benefit. Organophosphorus or iron poisoning are not absolute contra indications if the patient presents within a safe time window, although careful assessment is still required. Therefore, items 1 (corrosive) and 4 (turpentine) are the definitive contra indications on this list.

124. (c) Intravenous dexamethasone
In traumatic brain injury with high intracranial pressure (ICP), recommended measures include:
1. Elevating the head of the bed (improves venous drainage)
2. Ensuring adequate ventilation and sometimes hyperventilation
3. Using hypertonic saline or mannitol to lower ICP

Dexamethasone, however, is not standard for acute head trauma; studies show no survival or outcome benefit and possible harm. Steroids are useful for vasogenic edema (e.g., brain tumors, abscesses) but not for hemorrhagic or diffuse traumatic injury.

125. (c) Autism
Autism Spectrum Disorder is characterized by deficits in social communication/interaction and restricted or repetitive behaviors. Some children may achieve normal early motor milestones but show a lack of social engagement (aloof), delayed or atypical language development, and limited social reciprocity. Selective mutism usually manifests as speaking normally in some environments but remaining silent in others. ADHD presents with inattention, hyperactivity, and impulsivity. Phonological disorder affects speech sounds but not social aloofness.

126. (a) DTPw booster
According to many immunization schedules (including India's National Program), children receive a DPT booster around 5–6 years of age (the second booster after the first booster at 16–24 months). Tdap is often introduced at older ages (e.g., 11–12 years) to reduce vaccine reactogenicity. A 6-year-old who is otherwise up to date typically is due for that second DPT (whole-cell) booster. TT alone is given later, such as at 10 or 16 years, based on local guidelines.

127. (b) Temper tantrums
Time-out is a behavior-management technique often recommended for children exhibiting disruptive or attention-seeking behaviors such as temper tantrums. The child is briefly removed from the triggering context and placed in a neutral, safe space, thereby reducing reinforcement for the negative behavior. It is less useful for tics, stuttering, or breath-holding spells, which have different underlying mechanisms and require other interventions. Time-out focuses on teaching self-regulation and consistent consequences for undesired actions.

128. (a) Hepatitis B Immunoglobulin (HBIG) and Hepatitis B vaccine at birth
A neonate born to an HBsAg-positive mother should receive both Hepatitis B Immunoglobulin (HBIG) and the first dose of the Hepatitis B vaccine within 12 hours of birth to prevent perinatal transmission. Antiviral therapy (e.g., lamivudine, tunefully) is reserved for maternal treatment or later use in certain neonatal infection scenarios, but immediate newborn prophylaxis is HBIG + vaccine.

129. (d) At 3 years
Children with Down syndrome are at risk for atlantoaxial or atlanto-occipital instability. Guidelines vary slightly, but many recommend screening neck X-rays (often flexion–extension views) around the age of 3 to 5 years to check for excessive movement between the atlas and axis. Doing it at birth, 1 year, or 2 years is less commonly recommended unless there are clinical signs of instability. By 3 years, cervical anatomy is more mature, making evaluation more accurate.

NODIA

130. (c) Knee
In older children, the left-hand/wrist X-ray is the traditional standard to assess skeletal maturity. However, for newborns, epiphyseal development is best visualized around the knee (distal femoral and proximal tibial epiphyses).

116. (d) None of these

These symptoms suggest tumor lysis syndrome (TLS): hyperphosphatemia, hypocalcemia (causing tetany, QT prolongation), hyperkalemia, and hyperuricemia. Optimal management includes:

1. Adequate IV fluids (to maintain renal perfusion and flush out metabolites)
2. Phosphate binders (to control hyperphosphatemia)
3. Rasburicase (to lower uric acid).

All three measures are beneficial rather than detrimental. Hence none of these is the correct choice as none of the listed therapies would worsen the child's condition.

117. (b) Intravenous antibiotics

Acute croup (laryngotracheobronchitis) is typically a viral infection (often parainfluenza), so routine antibiotics are not indicated unless there is a strong suspicion of secondary bacterial infection. Mainstays of therapy for moderate to severe croup with stridor or respiratory distress include:

1. Corticosteroids (dexamethasone)
2. Nebulized epinephrine for significant airway compromise
3. Careful sedation may occasionally help an extremely anxious child, though with caution.
4. IV antibiotics offer no routine benefit in straightforward viral croup.

118. (c) Waves 'bye-bye'

By around 9 months, many infants learn to wave bye-bye, clap hands, and show more interactive gestures. Cruising around furniture often emerges closer to 9–10 months, and a mature (neat) pincer grasp is more reliably seen between 9–10 months (though sometimes considered slightly later). Babbling mama/dada non-specifically can occur around 9 months, but specifically referring to mother as mama with meaning may come a bit later. Waving bye-bye is the most typical milestone singled out at 9 months.

119. (b) Erythema toxicum

Erythema toxicum neonatorum is a benign, self-resolving rash seen in healthy term newborns, usually appearing in the first week of life as small erythematous papules/pustules. Mild physiologic jaundice typically arises after 24 hours, so jaundice at 20 hours is suspicious. Direct bilirubin of 3.0 mg/dL is abnormally high in a term newborn, suggesting cholestasis. Neonatal hypotonia is not a normal finding and may indicate underlying pathology.

120. (c) Positive pressure ventilation

Neonatal resuscitation guidelines emphasize heart rate as a key decision point. Despite the baby appearing pink and breathing, a heart rate below 100/min is inadequate. For heart rates between 60–100 bpm, positive pressure ventilation is indicated to improve ventilation and raise the heart rate. Chest compressions are initiated if HR <60 bpm despite adequate ventilation. IV epinephrine is given if HR remains below 60 bpm after coordinated ventilation and compressions.

121. (d) 60 months

Copying a triangle and confidently skipping typically appear around 5 years (60 months). By age 3 (36 months), children can copy a circle; by age 4 (48 months), they can copy a cross or a square. Naming several colors correctly, dressing/undressing with minimal help, and skipping smoothly usually solidify around the 5-year mark. Thus, these milestones align best with a 60-month-old child's development.

122. (b) Unable to sit without support by 10 months

Typical gross motor development includes sitting without support by around 6–8 months. Most standard milestone charts consider inability to sit unsupported by 9–10 months a significant concern, often termed a red flag. Although failing to walk by 15 months can also be worrisome, many guidelines allow up to about 18 months before labeling it a major red flag. No vocalization by 4 months is less standardized as an absolute red flag, and single words often appear by around 12 months but can vary.

123. (d) 4 and 1

Click Here to Buy book on Amazon

as a preventable cardiac ailment if identified early and managed. Community-acquired pneumonia, systemic JIA, and nephrotic syndrome are not explicitly listed in the priority diseases under RBSK. RHD screening is a key part of the program's disease category.

79. (d) Iron
Acute iron overdose in children can produce severe gastrointestinal irritation (leading to gastric necrosis and hemorrhage), metabolic acidosis, shock, and subsequent hepatic necrosis. Early symptoms typically include severe abdominal pain, vomiting (often bloody), and diarrhea. Calcium or folic acid overdoses do not produce this severe profile of toxicity. Multivitamins (without iron) also rarely cause such severe necrotizing effects.

80. (a) Estimation of blood sugar
In a low-birth-weight or preterm neonate presenting with lethargy, high-pitched cry, and feeding difficulty, the highest immediate concern is hypoglycemia. Checking a rapid blood glucose level is a standard first step to quickly rule out or confirm neonatal hypoglycemia. While checking serum calcium or providing oxygen may be relevant if other signs appear, the best initial investigation is blood sugar measurement.

81. (b) Atropine
Organophosphorus compounds inhibit acetylcholinesterase, causing overstimulation of muscarinic and nicotinic receptors. Atropine is a muscarinic antagonist that dries secretions (anti-sialogogue) and corrects peripheral parasympathetic excess (e.g., bronchorrhea, bradycardia). Pralidoxime (2-PAM) reactivates acetylcholinesterase (mainly addressing nicotinic symptoms) but does not reduce secretions as effectively as atropine. Carbamates are another class of reversible cholinesterase inhibitors, and benzodiazepines are used for seizures, not for parasympathetic overdrive.

82. (d) Ketamine
Ketamine provides both sedation and analgesia, making it well-suited for short, potentially painful procedures in children. It preserves airway reflexes, often maintaining stable hemodynamics. Midazolam alone offers sedation and anxiolysis but less analgesia. Propofol provides good sedation but minimal intrinsic analgesia and can lead to hypotension. Chloral hydrate is mainly a sedative/hypnotic without robust analgesic properties.

83. (c) Adenosine
For acute management of paroxysmal supraventricular tachycardia (SVT) in children, adenosine (given rapidly IV) is the first-line pharmacological agent. It transiently blocks AV nodal conduction, often restoring normal sinus rhythm. Lidocaine is used for ventricular arrhythmias, atropine can increase heart rate (used in bradyarrhythmias), and naloxone reverses opioid-induced respiratory depression—not SVT.

84. (b) The baby's chin touches the breast
Key signs of good latch include: the chin firmly touching the breast, the baby's mouth wide open, lips flanged outward (especially the lower lip), and most of the areola in the mouth (with more areola visible above than below). The baby's nose near—but not necessarily at the exact level of—the nipple is also typical, but the crucial visible hallmark is that the chin deeply contacts the breast. An inverted lower lip suggests a poor latch.

85. (a) Pink colour
A vigorous baby after meconium-stained amniotic fluid is defined by:
1. Strong respiratory efforts,
2. Good muscle tone, and
3. Heart rate >100 beats/min

Although many healthy newborns do appear pink, pink colour per se is not part of the strict vigorous baby definition. The baby's color can be variable initially, so the key criteria revolve around respiration, heart rate, and muscle tone.

86. (a) It is located over the parietal bones in the subcutaneous plane
A cephalhematoma is a subperiosteal (not subcutaneous) hemorrhage confined by suture lines, most commonly over the parietal bones. It often increases in size over the first 1–2 days,

NODIA

The presence or size of certain ossification centers in the knee correlates with gestational maturity. Hence, knee X-ray is most commonly used to assess bone age in neonates, rather than the wrist or elbow.

131. (a) Deficit
The RBSK initiative in India targets four broad categories in children:
1. Defects at birth (congenital anomalies),
2. Diseases (childhood illnesses like rheumatic heart disease),
3. Deficiencies (e.g. anemia, vitamin deficiencies),
4. Developmental delays and disabilities.

Deficit, as listed in option (a), is not specifically one of these recognized 4 Ds.

132. (b) 1–4 years
Global data indicate that toddlers aged 1–4 years have some of the highest drowning rates, largely because of their natural curiosity, lack of supervision near water (including household containers or pools), and inability to rescue themselves. Infants under 1 year can drown but are more often in controlled environments. Older children (school-age) often have swimming skills or better supervision. Thus, many drowning prevention programs focus on vigilant adult supervision and safety measures for the 1–4 year group.

133. (b) Half-normal saline (N/2) in 5% dextrose at 15 mL/kg over 60 minutes
Children with severe malnutrition are more prone to fluid overload and heart failure if rehydrated too aggressively. The WHO guidelines recommend cautious IV rehydration with a half-strength saline plus 5% dextrose solution, at a slower rate—typically 15 mL/kg over 1 hour—to correct shock. Ringer's lactate or full-strength saline boluses are standard in typical dehydration, but in severely malnourished children, lower-volume and lower-sodium regimens plus careful monitoring are crucial.

134. (d) 36.0 – 36.4 °C
According to standard neonatal thermal care guidelines, a normal axillary temperature is around 36.5–37.5 °C. Temperatures between 36.0 and 36.4 °C are categorized as cold stress (mild hypothermia). Below 36.0 °C, the newborn enters moderate to severe hypothermia ranges. Prompt, gentle warming measures (Kangaroo Mother Care, radiant warmers, etc.) are crucial to prevent complications of hypothermia.

NODIA

135. (a) Nephrotic syndrome, infrequent relapses
Infrequent relapses occur if a child has fewer than two relapses in six months or fewer than four in 12 months. Frequent relapser status requires two or more relapses in six months or four or more in a year. Steroid dependence implies relapse while on steroid therapy or within two weeks of stopping. Steroid resistance refers to failure to achieve remission on standard steroid doses. Since this child has had three relapses spread over 18 months, he fits the infrequent relapses category.

136. (b) Tissue trans glutaminase antibodies
A child with growth failure, chronic mild abdominal symptoms, and iron deficiency anemia unresponsive to iron supplementation raises the suspicion of celiac disease. The initial screening test is typically serum IgA anti-tissue trans glutaminase (tTG) antibodies. If positive, confirmatory endoscopic biopsy of the small intestine can be done. Bone marrow aspiration is more relevant for suspected aplastic anemia or hematological disorders. Lower GI studies and colonoscopies are not first-line for suspected malabsorption in celiac disease.

137. (a) Fluid resuscitation with crystalloids
In any acute gastrointestinal bleed, especially with ongoing hematomyelis, the first priority is to stabilize circulation by ensuring adequate volume status. Crystalloid fluid resuscitation helps maintain blood pressure, tissue perfusion, and organ function. Vasoactive drugs (vasopressin, octreotide) or beta-blockers (propranolol) might be considered subsequently for portal hypertension/variceal bleeding, but not before initial resuscitation. Transdermal nitroglycerin alone is not the primary therapy for acute upper GI bleeding in a child.

138. (b) Intravenous labetalol infusion

premature infants affecting the corticospinal tracts controlling the legs.
Hence A→4, B→2, C→1, D→3.

183. (a) 1, 2 and 3
Staphylococcal pneumonia in infants can be severe, with a high proportion of cases occurring in children under one year (1). Pneumatoceles (air-filled cavities) are a known complication (2). Staph aureus is also a very common cause of empyema in children under two (3). However, it typically requires aggressive inpatient management (IV antibiotics), so describing it as easily amenable to treatment in the outdoors (i.e. outpatient) is inaccurate. Thus, statements 1, 2, and 3 are correct.

184. (b) Congenital hypertrophic pyloric stenosis
In a 3–6 week old infant with projectile, non-bilious vomiting, a palpable olive-like mass in the right upper quadrant, and visible gastric peristalsis, pyloric stenosis is highly suggestive. Bilious vomiting would be more typical of lower obstruction (e.g., duodenal atresia past the ampulla). Intussusception often presents a bit older and with colicky pain plus red currant jelly stools.

185. (c) Acute Epiglottitis
Acute epiglottitis usually presents in young children with sudden high fever, drooling (due to inability to swallow saliva), and severe distress (often tripod position, stridor). The child appears toxic and can deteriorate fast. Tonsillopharyngitis (a) tends to cause throat pain but not such dramatic drooling or airway compromise. Tracheo-esophageal fistula (b) is usually congenital and presents earlier in infancy. Laryngeal webs (d) also typically present earlier and not acutely in a healthy toddler.

186. (c) Acute glomerulonephritis with hypertensive encephalopathy
Severe hypertension (200/100 mm Hg), new-onset seizures (hypertensive encephalopathy), and findings of hematuria, oliguria, edema strongly suggest acute glomerulonephritis. The normal platelet count argues against hemolytic uremic syndrome (which typically involves thrombocytopenia and microangiopathic hemolysis). Urinary tract infection or obstruction usually do not cause abrupt, severe hypertension with encephalopathy.

187. (a) Ringer lactate at 30 ml/kg given intravenously in 30 minutes
A child with severe dehydration typically requires a rapid IV bolus to restore circulatory volume. WHO guidelines often recommend an initial bolus of 20–30 ml/kg of isotonic solution (Normal Saline or Ringer's Lactate) over about 30–60 minutes to stabilize hemodynamics. Oral rehydration (b) is ideal for mild-to-moderate dehydration, but with severe dehydration (and potential shock), immediate intravenous fluid resuscitation at a faster rate is essential.

188. (a) Cyclophosphamide
Cyclophosphamide is commonly employed as a second-line agent in frequently relapsing or steroid-dependent nephrotic syndrome. Key adverse effects include bone marrow suppression (neutropenia), hemorrhagic cystitis (which can present as hematuria), nausea, and vomiting. Levamisole and cyclosporine have different side-effect profiles, and prednisolone-induced side effects are more along the lines of Cushingoid features, hyperglycemia, etc.

189. (d) 1, 2, 3 and 4
Distal (type 1) RTA features a normal-anion-gap (hyperchloremic) metabolic acidosis (1) due to impaired distal acid excretion (2). Chronic acidosis may lead to muscle weakness, bone demineralization (rickets/osteomalacia) (3). Children can present with polyuria/polydipsia from urinary concentrating defects (4). Thus, all listed statements are accurate for distal RTA.

190. (b) Posterior urethral valve
In male infants, congenital posterior urethral valves cause obstruction to urine outflow, resulting in a weak or dribbling urinary stream, recurrent UTIs, and bladder distention (which can be palpable). A bladder tumor or neuroblastoma would be far less likely to present with a lifelong history of dribbling since birth. A ureterocele typically arises more internally.

Downloaded from www.pdf.tube

STUDYING FROM PDFs?

THINK AGAIN.

If you are studying only from PDFs,
you are wasting valuable time.

Research shows that learning from

PRINTED BOOKS has up to

4× HIGHER RETENTION

than studying from screens.

PRINT BOOK = BETTER MEMORY

PDF = LOWER RETENTION

Those who study from **PRINTED BOOKS**
move **AHEAD.**

Others are left **BEHIND**
in competition.

In competitive exams,
being average is not enough.

STAY ONE STEP AHEAD.

and pigmentary changes. Angelman syndrome causes severe developmental delays, ataxia, and characteristic happy demeanor, unrelated to giant granules.

145. (b) Increasing intake of vegetables and cereals
In a one-year-old who is primarily on milk feeds and now constipated without any impaction, the first step is to diversify the diet to include more fiber (vegetables, fruits, cereals) and adequate fluid intake. This often helps correct mild constipation. Pharmacologic interventions (lactulose, polyethylene glycol, magnesium hydroxide) are typically considered if dietary measures fail or the child has refractory symptoms or fecal impaction.

146. (a) Tuberous sclerosis
Tuberous sclerosis complex (TSC) often features seizures, intellectual disability, and characteristic skin findings including hypo melanotic macules (ash leaf spots) and facial angiofibromas (formerly called adenoma sebaceum)—tiny red or pink nodules over the nose and cheeks. Sturge–Weber syndrome typically involves a facial port-wine stain (nevus flammeus) in the trigeminal area. PHACE syndrome is a complex vascular disorder with large facial hemangiomas. Neurofibromatosis type 1 causes café-au-lait spots, neurofibromas, and Lisch nodules in the iris, not the described facial angiofibromas.

147. (c) Acute glomerulonephritis with hypertensive encephalopathy
In a child with sudden onset edema, hematuria, severe hypertension, and elevated urea, acute post-streptococcal glomerulonephritis is highly suggestive. Convulsions indicate hypertensive encephalopathy. Hemolytic uremic syndrome typically shows a triad of microangiopathic hemolytic anemia, thrombocytopenia, and renal failure. Nephrotic syndrome predominantly features heavy proteinuria, hypoalbuminemia, and edema but not usually extreme hypertension and seizures. Obstructive uropathy seldom presents with acute severe HTN and frank hematuria of this nature.

148. (a) Acute poliomyelitis
Acute poliomyelitis is characterized by a febrile prodrome followed by the sudden onset of asymmetric flaccid paralysis with diminished or absent deep tendon reflexes. Sensory function remains largely intact, and the child's sensorium is normal. Guillain-Barré syndrome (infective polyneuritis) often presents with symmetrical ascending weakness, while transverse myelitis typically includes a sensory level and possible sphincter involvement. Rheumatic fever does not present with flaccid paralysis.

149. (b) Cytomegalovirus infection
Periventricular calcifications on cranial imaging are pathognomonic for congenital CMV infection, which can also feature microcephaly and sensorineural hearing loss. Tuberculous meningitis may cause basilar meningeal enhancement and infarcts, while congenital syphilis and Japanese encephalitis have different radiologic patterns. Hence, the hallmark finding of periventricular calcification strongly suggests CMV.

150. (c) Vaso-occlusive crisis
Sickle cell vaso-occlusive crises produce ischemia, infarction, and pain in bones and joints. Hand-foot syndrome (dactylitis), femoral head necrosis, and acute abdominal pain from visceral infarction are classic. These episodes can spontaneously resolve within days to a week. An aplastic crisis (often parvovirus B19) causes severe anemia and reticulocytopenia. Sequestration crisis involves pooling of blood in the spleen or liver. Hemolytic crisis is abrupt hemolysis with a sharp drop in hemoglobin, not primarily bone pain.

NODIA

151. (a) A1 B4 C2 D3
Down syndrome corresponds to trisomy 21: 47, XY, +21 (A→1). Turner syndrome is a single X chromosome, or 45, XO (B→4). Noonan syndrome generally has a normal karyotype (46, XY or 46, XX), so matching 2. 46, XY is used here (C→2). Cri-du-chat results from deletion of the short arm of chromosome 5: 46, XX, 5p– (D→3). Thus, (a) correctly matches A1, B4, C2, D3.

152. (a) They occur during inspiration

hallmark. Because the pyloric obstruction is proximal to the bile duct, the vomitus is not bilious (2), and melena (4) is not typical.

169. (c) Before six months of age
Large VSDs can lead to significant left-to-right shunting and potentially irreparable pulmonary vascular disease (Eisenmenger syndrome) if not corrected early. Current pediatric cardiology guidelines recommend closing large VSDs as soon as they become hemodynamically burdensome, often before 6 months to prevent permanent changes in the pulmonary vasculature. School going age (option a) is too late, only if CHF is uncontrolled (option b) risks pulmonary hypertension, and soon after birth (option d) is not usually mandatory unless severe heart failure occurs immediately.

170. (a) Wasted, stunted
Weight-for-height (a measure of wasting) here is 7 kg vs. an expected 9 kg, which is about 78% of the reference—indicative of wasting but not necessarily <70% (severe wasting). Height-for-age (a measure of stunting) is 74 cm vs. an expected 86 cm (~86%), consistent with mild-to-moderate stunting but not below a threshold of ~85% or 3 SD for severe stunting. Thus, the child qualifies as both wasted and stunted, but not severely in either category by WHO criteria.

171. (a) Calorie 150-220 kcal/kg/d; protein 4-6 g/kg/d
In severe acute malnutrition (SAM), high catch-up intake of both calories and protein is required to foster rapid weight gain and recovery. Guidelines often suggest about 150–220 kcal/kg/day and 4–6 g protein/kg/day to support tissue building and immune restoration, which exceeds normal maintenance requirements. Lower ranges (125–175 kcal/kg/d) may not be sufficient for true catch-up, while offering only 2–4 g/kg/d protein can hinder adequate repair.

172. (a) Decrease in parathyroid hormone level
In vitamin D deficiency, less calcium is absorbed from the gut (b). This hypocalcemia increases parathyroid hormone (PTH) secretion—so PTH typically rises, not decreases. Elevated PTH then promotes phosphate excretion in the kidneys, i.e., lowers serum phosphate (so there is effectively a decrease in renal phosphate reabsorption, reflected in (c) being correct). Increased alkaline phosphatase (d) occurs from active osteoblasts attempting to repair poorly mineralized bone. Therefore, a drop in PTH is not a feature.

173. (d) Juvenile rheumatoid arthritis
Prolonged fever with anemia and petechiae typically indicates a process involving bone marrow suppression, infiltration, or chronic infection with low platelet count. Acute leukemia commonly presents with fever, anemia, thrombocytopenia (petechiae). Prolonged tuberculosis or typhoid fever can produce significant systemic inflammation and sometimes mild cytopenias. By contrast, juvenile rheumatoid arthritis (JRA) may cause fever and anemia of chronic disease, but it does not commonly lead to platelet counts low enough to produce petechiae. Hence (d) is the least likely.

174. (a) Philadelphia chromosome is negative
Juvenile myelomonocyte leukemia (a subtype of juvenile CML) is typically Philadelphia chromosome–negative, whereas adult-type CML usually shows the Ph chromosome (t(9;22)). Thrombocytopenia may be common, not rare, in juvenile variants. Prognosis in children with juvenile forms tends to be more variable and can be poor unless appropriately managed (hematopoietic stem cell transplantation is often required). Single-agent cy to reductive therapies like busulfan/hydroxyurea rarely induce long-term remission in juvenile disease.

175. (b) 1 and 2 only
Wiskott-Aldrich syndrome is an X-linked recessive immunodeficiency characterized by eczema (often resembling atopic dermatitis), thrombocytopenia, and recurrent infections. Typically, these patients have low IgM levels and elevated IgA and IgE. The statement low serum levels of IgA (3) is incorrect for Wiskott-Aldrich; in fact, IgA tends to be normal or high. Therefore, only (1) and (2) correctly describe Wiskott-Aldrich syndrome.

Click Here to Buy book on Amazon

cardiac defects (e.g., PDA) and sensorineural deafness. Rh incompatibility leads to hemolysis and jaundice but not cataracts. Hence galactosemia is the most likely cause.

161. (b) Tubercular meningitis
Tubercular meningitis typically has a subacute onset (e.g., fever for weeks) and characteristic CSF findings: raised pressure, clear appearance, lymphocyte-predominant pleocytosis, elevated protein, and low glucose/chloride. Pyogenic (bacterial) meningitis usually shows a more acute course with neutrophilic pleocytosis, very high WBC counts, and often turbid CSF. Acute encephalitis usually has different CSF patterns, and SSPE presents with progressive neurological decline over months/years related to measles virus. Hence the subacute presentation with these CSF changes points to TB meningitis.

162. (d) Polydactyly
Turner syndrome (45, XO) typically presents with short stature, webbed neck, broad chest with widely spaced nipples (shield chest), cubitus valgus (increased carrying angle at the elbow), and ovarian dysgenesis leading to delayed puberty. Polydactyly (extra digits) is not a recognized feature of Turner syndrome. Thus, (d) is the exception among the common physical findings of Turner syndrome.

163. (b) Aspirin
Steroid-sparing agents help achieve remission in frequently relapsing or steroid-dependent nephrotic syndrome. Common immunosuppressive used include leva mi sole, cyclophosphamide, and mycophenolate mofetil. These agents allow reduction or discontinuation of steroids while maintaining remission. Aspirin, although useful as an antiplatelet agent in certain conditions, does not reduce relapse frequency in nephrotic syndrome and is not a recognized steroid-sparing option.

164. (d) Hypodiploidy
Good prognostic indicators in childhood ALL include being age 1–9 years, WBC count <50,000/mm^3, and female sex. Hyperdiploidy (often >50 chromosomes) is also considered a favorable cytogenetic feature. By contrast, hypodiploidy (fewer than the normal 46 chromosomes) is associated with a poorer prognosis. Hence hypodiploidy is the exception among the listed good prognostic factors.

165. (b) 1, 2 and 4
Polyarticular JRA (a subtype of juvenile idiopathic arthritis) is indeed more common in females (1). By definition, it involves ≥5 joints during the first six months (2). Rheumatoid factor can be positive or negative.

166. (d) Absence seizure
Absence seizures (petit mal) commonly present in school-aged children. Characteristic features are abrupt interruptions of activity, a vacant stare, and occasional subtle movements like lip quivering or blinking. The child then resumes normal activity without awareness of the lapse. Such episodes may occur multiple times a day. Unlike autism or mutism, absence seizures are brief and purely epileptic. An adjustment disorder likewise would not show these classic blanking out spells.

167. (c) 2 and 3 only
Gastric lavage is contraindicated in kerosene (hydrocarbon) poisoning (2) because of the high risk of aspiration pneumonitis, and in corrosive poisoning (3) because it can worsen esophageal/gastric injury. Although caution must be used in iron poisoning, it is not an absolute contraindication if done very early. Aspirin poisoning often still benefits from gastric decontamination if the patient presents promptly. Thus, the only universally recognized contra indications for pediatric gastric lavage among the listed items are kerosene (2) and corrosives (3).

168. (b) 1 and 3 only
Classic infantile hypertrophic pyloric stenosis presents around 2–8 weeks of age with progressive, non-bilious projectile vomiting. On examination, visible gastric peristalsis (1) may be seen as waves moving from left to right across the epigastrium. A firm, olive-like palpable mass (3) in the right upper quadrant is another

NODIA

condition (sometimes called XYY syndrome), not Marfan's.

199. (c) Anti double stranded DNA antibodies
Anti–double-stranded DNA (anti-dsDNA) antibodies have high specificity for systemic lupus erythematosus, correlated with disease activity (especially nephritis). Anti-histone antibodies are more associated with drug-induced lupus. ANCA (anti–neutrophil cytoplasmic antibodies) typically indicate vasculitides (e.g., Wegener's/granulomatosis with polyangiitis). Anti-myeloperoxidase is another ANCA subtype, also not specific for typical childhood lupus.

200. (b) A-2 B-3 C-4 D-1
- Hepatitis B vaccine (A) is a subunit vaccine (2) containing HBsAg.
1. Diphtheria vaccine (B) is a toxoid (3).
2. Hemophilus influenza type b vaccine (C) uses a polysaccharide (capsular) conjugated to a protein (4 in simplified matching schemes).
3. Measles vaccine (D) is a live attenuated viral vaccine (1).

Hence the matching is A→2, B→3, C→4, D→1.

201. (d) atrial septal defect with mitral stenosis
Congenital heart defects that present with right-to-left shunts or severely impaired systemic oxygenation (e.g., transposition of the great arteries, single ventricle defects, hypoplastic left heart syndrome) lead to early cyanosis. An atrial septal defect (ASD) usually causes a left-to-right shunt, and adding mitral stenosis typically produces pulmonary congestion and possibly right heart enlargement, but not the classic right-to-left mixing required for early cyanosis. Hence, ASD with mitral stenosis is the one in this list that typically does not cause neonatal cyanosis.

202. (d) 1, 2 and 4
Coarctation of the aorta is indeed associated with Turner syndrome (1). It classically occurs just distal to the origin of the left subclavian artery, near the ligamentum arteriosum (2). About 50–85% of patients have a bicuspid aortic valve (4). However, coarctation is actually more common in males (approximately 2:1 or 3:1 ratio), so statement (3)—twice as common in females—is incorrect. Therefore, the correct set is statements 1, 2, and 4.

203. (a) anterior horn cell
Fibrillation potentials on EMG typically point to denervation (i.e., lesion in the anterior horn cell or peripheral nerve). The classical scenario of a young child with predominantly distal muscle weakness, facial sparing, reduced deep tendon reflexes, and EMG changes fits best with an anterior horn cell disorder (e.g., spinal muscular atrophy/Werdnig-Hoffmann disease). Peripheral nerve pathologies often have a different distribution of weakness or sensory involvement, and neuromuscular junction/muscle diseases have different EMG findings.

204. (c) rectal biopsy
In Hirschsprung disease (congenital aganglionic megacolon), the definitive test is a rectal biopsy demonstrating absence of ganglion cells (both submucosal [Meissner's] and myenteric [Auerbach's] plexuses) in the distal bowel. Barium enema or anorectal manometry can be useful screening tools, but the final confirmation always relies on the histological proof of aganglionosis on biopsy.

205. (b) Acute leukaemia
In a toddler with a short history (acute onset) of severe pallor, petechiae (platelet-related bleeding), and splenomegaly, acute leukemia (often acute lymphoblastic leukemia) is highly suspect. Thalassemia major usually presents earlier in life with chronic pallor and is less likely to produce marked thrombocytopenic petechiae. Hodgkin's lymphoma typically shows lymphadenopathy plus B-symptoms. ITP often causes petechiae but not usually significant splenomegaly and severe pallor.

206. (c) A-2 B-3 C-4 D-1
1. Acute lymphoblastic leukemia (A) → often presents with lymphadenopathy and petechiae → (2).
2. Juvenile rheumatoid arthritis (B) → swelling of joints (including small joints of hands in the rheumatoid subtype) → (3).

Downloaded from www.pdf.tube

176. (b) Thalassemia major
A low ferritin typically indicates iron deficiency. Conditions such as celiac disease (malabsorption), nutritional deficiency, and some hemolytic disorders (like PNH) can eventually reduce iron stores. Thalassemia major, however, usually presents with normal or increased ferritin (partly due to enhanced intestinal absorption of iron and multiple transfusions if treated). Despite its microcytic RBCs, thalassemia generally does not show low ferritin. Thus, out of these choices, thalassemia major is the least likely cause of low-ferritin, microcytic anemia.

177. (d) 28 weeks
Around 6–7 months (roughly 24–28 weeks), an infant typically can sit with support or by leaning forward on outstretched arms (tripod sitting). They often bear weight on their legs if held upright, bouncing with support. Laughter emerges around 3–4 months, but true anxiety or concern upon mother's departure (a precursor to separation anxiety) is more noticeable near 6–7 months. Hence, 28 weeks (≈7 months) fits best among the given options.

178. (a) A-1, B-4, C-2, D-3
1. A. Skin lesion + hepatomegaly → Histiocytosis (1), e.g., Langerhans cell histiocytosis often shows skin rashes plus liver involvement.
2. B. Engorged neck veins + hepatomegaly → Constrictive pericarditis (4), where venous return is impeded, causing jugular venous distension and hepatic congestion.
3. C. Cataract + hepatomegaly → Galactosemia (2), presenting with failure to thrive, liver dysfunction, and cataracts.
4. D. Hydrocephalus + hepatomegaly → Congenital toxoplasmosis (3) can involve CNS (hydrocephalus) plus hepatic enlargement.

Thus, (a) is correct: A→1, B→4, C→2, D→3.

179. (c) Pauciarticular type
Among the subtypes of juvenile rheumatoid arthritis (also called juvenile idiopathic arthritis), the pauciarticular (oligoarticular) category—affecting four or fewer joints in the first six months—is the most common, especially in young females. Polyarticular forms (RF-positive or RF-negative) and systemic-onset disease (Still's disease) are less frequent. Pauciarticular JIA often presents with knee or ankle joint involvement, a higher risk of uveitis, and typically a milder course compared to polyarticular or systemic disease.

180. (a) Plenty of oral/ IV fluids and observation
In a clinically stable dengue patient with no active bleeding, normal blood pressure, and acceptable hematocrit, aggressive platelet transfusions are not routinely indicated solely for a low platelet count. Guidelines emphasize maintaining adequate hydration and careful monitoring. Platelet transfusions are generally reserved for significant hemorrhage or extremely low counts (<10,000–20,000/μL) with high bleeding risk. Thus, the best approach in this child—who is stable and without bleeding—is to ensure good oral/IV fluids, close observation, and supportive care.

181. (b) 1 and 4 only
This presentation is most consistent with a simple febrile seizure. Primary management is controlling the fever (1) through antipyretics, tepid sponging, and close observation. Although IV benzodiazepines are used during prolonged or repeated seizures, routine IV phenytoin plus lumbar puncture is not mandatory in a straightforward simple febrile seizure without meningeal signs (2 is not routinely required). Maintenance anticonvulsants for a year (3) are not recommended. Short-term intermittent prophylaxis with rectal diazepam (4) can be used to reduce recurrence during febrile episodes.

182. (d) A-4, B-2, C-1, D-3
Extrapyramidal cerebral palsy (A) is often linked to bilirubin encephalopathy (4), especially kernicterus damaging the basal ganglia.
Spastic quadriplegia (B) arises from more diffuse brain injury, such as multicystic encephalomalacia (2).Spastic hemiplegia (C) commonly follows a focal lesion (like a perinatal stroke, 1).Spastic diplegia (D) often results from periventricular leukomalacia (3), typically in

NODIA

Breath-holding spells in toddlers typically happen after a forceful expiration triggered by crying or frustration; they are not initiated during inspiration. They are involuntary reflex events, can be associated with cyanosis (or pallor), and can cause bradycardia due to vagal stimulation. Because they follow a crying-out (expiratory) phase, option (a) is incorrect.

153. (b) Haemoglobin A2 more than 3.5%
Beta-thalassemia trait (carrier status) is characterized by an elevated HbA_2 fraction (>3.5%) on hemoglobin electrophoresis. A low hemoglobin level alone is not specific, and fetal hemoglobin (HbF) can rise modestly but typically not above 10% in trait carriers. Osmotic fragility test is associated more with hereditary spherocytosis. Thus, an elevated HbA_2 best confirms beta-thalassemia minor.

154. (d) Excretory urogram
In a young boy with obstructive urinary symptoms (poor stream, incomplete emptying, palpable bladder), a structural lesion such as posterior urethral valves is strongly suspected. An excretory urogram (IVU) or a voiding cystourethrogram (commonly done) can visualize the outflow obstruction. Abdominal X-ray or routine urine testing will not definitively identify anatomical causes. Circumcision only helps if phimosis is the culprit, but with a palpable post-void bladder, deeper obstruction is likely.

155. (c) Severe acute malnutrition
According to WHO criteria, severe acute malnutrition (SAM) includes weight-for-height < –3 SD (or below 3 Z scores) and/or a mid upper arm circumference (MUAC) <11.5 cm (some references say <11.5 cm). This child meets both very low weight-for-age/height criteria and has MUAC <11 cm, placing him in the severe acute malnutrition category.

156. (b) Wasted
Wasting reflects low weight-for-height. Here, weight-for-height at 65% is clearly below normal. Stunting is typically defined as height-for-age under about 80% or < –2 SD. Many classifications use 80% as a cutoff, but in this question, 82% is considered above the stunting threshold. Hence the child's main issue is low weight-for-height (wasting), not significant stunting.

157. (b) DNA PCR test
In children under 18 months, maternal IgG antibodies can cross the placenta, rendering antibody-based tests (like ELISA) unreliable for diagnosing the infant's HIV status. The recommended confirmatory test in early infancy is a virologic test such as HIV-1 DNA or RNA PCR, which detects the virus itself. p24 antigen assays are less sensitive in neonates, and a CD4 count is more for immunological monitoring rather than initial diagnosis.

158. (c) Copying a square
By three years, children can pedal a tricycle, use their hands and feet in coordinated actions like climbing, and often begin to handle scissors (though clumsily). Copying geometric shapes emerges progressively: a circle around age three, but a square is generally closer to age four or five. Therefore, copying a square is not expected for a typical three-year-old.

159. (d) Coarctation of aorta
Coarctation of the aorta classically presents with weak, delayed femoral pulses compared to brachial pulses (radio-femoral delay), often noticed when the child experiences leg fatigue or claudication on exertion. The upper limb blood pressure is higher than in the lower limbs, and children may have a normal-sized heart but a forceful left ventricular (LV) impulse from pressure overload. Other lesions like VSD, PDA, or ASD do not typically produce this brachial–femoral discrepancy or the classic exertion al leg symptoms.

160. (b) Galactosemia
In neonates, galactosemia commonly presents with feeding difficulties (vomiting, diarrhea), jaundice, and the development of cataracts (often bilateral) due to toxic metabolites of galactose. Symptoms usually begin after the infant is started on milk feeds containing lactose (galactose + glucose). Congenital rubella can indeed cause cataracts but typically also features

Click Here to Buy book on Amazon

Posterior urethral valves remain the classic cause in a male infant with such symptoms.

191. (d) Henoch–Schönlein purpura
Henoch–Schönlein purpura (IgA vasculitis) is classically described in children with the tetrad of palpable purpura on buttocks/legs, arthritis (joint pains/swelling), abdominal pain, and renal involvement (hematuria). Thrombasthenia and ITP primarily affect platelets/bleeding but do not typically involve arthritis or abdominal pain in this manner. Lupus is less likely in this acute scenario with the specific triad.

192. (c) Make a tower of 6 blocks
By about 1 year of age, typical milestones include waving bye-bye, saying a few words like mama/dada, and standing alone briefly. Stacking six blocks usually emerges closer to 2 years of age (toddlers typically can stack about two cubes by 15 months, four cubes by 18 months, and around six cubes near age 2). Therefore, option (c) is beyond a typical 12-month-old's motor skills.

193. (a) Enlarged thymus
SCID involves profound defects in both T cells (and often B cells), leading to recurrent severe infections, low immunoglobulins, and marked T-cell dysfunction. Typically, these children have a very small or absent thymus on imaging due to poor T-cell development. An enlarged thymus is not characteristic—if anything, the thymus is underdeveloped.

194. (a) Chediak Higashi syndrome
Chediak–Higashi syndrome is a rare autosomal recessive disorder characterized by oculocutaneous albinism (partial), recurrent infections, and the presence of giant granules within leukocytes (notably neutrophils). These giant granules are due to a defect in lysosome-related organelles (abnormal microtubule function). Hermansky–Pudlak syndrome also involves albinism and a platelet storage-pool defect, but not the characteristic giant granules or marked immunodeficiency. Piebaldism and Waardenburg's syndrome cause specific pigmentary disturbances without the severe immunological issues seen in Chediak–Higashi.

195. (a) Continue breast feeds and review after 48 hours
At around 2 days of age, a bilirubin level of 11 mg/dL with predominantly unconjugated bilirubin (direct component only 0.4 mg/dL) is within the range of physiologic or breastfeeding jaundice in a healthy term neonate. The infant is clinically well, so immediate phototherapy or exchange transfusion is usually not required unless bilirubin crosses higher risk thresholds. The recommended approach is to maintain adequate feeds—especially breast milk—to promote bilirubin excretion and to recheck levels if clinically indicated after about 1–2 days.

196. (c) A-4 B-1 C-2 D-3
1. Fetal alcohol syndrome → commonly associated with ventricular septal defect (4).
2. Turner's syndrome → classically features bicuspid aortic valve or coarctation (1).
3. Down syndrome → well known for endocardial cushion defects (AV septal defects) (2).
4. Congenital rubella → classically linked with pulmonary artery stenosis (among other abnormalities) (3).

So the matches are A→4, B→1, C→2, and D→3.

197. (d) Marasmus
Marasmus is characterized by severe wasting of both muscle and subcutaneous fat, with little or no edema. A 12-month-old weighing only 4.5 kg is extremely underweight for age, indicating a profound caloric (energy) deficiency. Kwashiorkor typically presents with edema and relatively better subcutaneous fat preservation, whereas marasmic-kwashiorkor shows features of both. The severe deficiency with marked wasting but no edema is classic marasmus.

198. (d) Marfan's syndrome — 47, XYY
Marfan's syndrome is not typically associated with an abnormal chromosome number. It is caused by a fibrillin-1 (FBN1) gene mutation (on chromosome 15) but remains 46, XY or 46, XX karyotypically. Meanwhile, Turner's syndrome (45, X), Down syndrome (47, +21), and Klinefelter's (47, XXY) are correctly matched to their known karyotypes. 47, XYY is a separate

Downloaded from www.pdf.tube

Severe hypertension with encephalopathy (headaches, seizures, visual changes, papilledema/retinopathy) requires careful, controlled blood pressure reduction. Intravenous labetalol (or other IV antihypertensive infusions like sodium nitroprusside) is recommended for acute pediatric hypertensive emergencies. Sublingual nifedipine is discouraged due to risks of precipitous hypotension and reflex tachycardia. While diuretics (e.g., furosemide) may help in certain cases, they are not first-line for acute hypertensive encephalopathy. Minoxidil is typically used orally for refractory hypertension, not usually first-line IV therapy.

139. (b) Start child on thyroxine immediately
A TSH 20–40 mU/L on newborn screening is highly suspicious for congenital hypothyroidism. Early intervention is critical to prevent irreversible nondevelopment impairment. While a confirmatory venous sample is often done, many protocols recommend initiating treatment promptly (often before two weeks of age) if TSH is significantly elevated, because any delay can affect neurological outcomes. Therefore, the safest course is to start thyroxine while confirming the diagnosis, rather than waiting weeks before rechecking levels.

140. (b) Tricuspid atresia
Tricuspid atresia results in the absence or underdevelopment of the right ventricle and a mandatory atrial or ventricular septal defect. Clinically, it often features a single second heart sound (due to the lack of a normal pulmonary component) and a murmur from a VSD. On ECG, left axis deviation is characteristic because the right ventricle is rudimentary, while the left ventricle hypertrophies. Tetralogy of Fallot typically shows right axis deviation, TGA often has different findings, and TAPVC has other distinctive features.

141. (a) Cerebral palsy
Although cerebral palsy can present with spasticity in many cases, some children initially appear hypotonic (floppy) before developing clear upper motor neuron signs like brisk deep tendon reflexes and clonus. The delayed motor milestones (head control only by one year, never walked) point toward a chronic nondevelopment disorder. Spinal muscular atrophy would show hypotonia but typically with decreased or absent reflexes. Congenital hypothyroidism also causes motor delays and hypotonia, but reflexes are not classically brisk, and myotonic dystrophy presents differently.

142. (a) Carbamates
Excess salivation, lacrimation, urination, defecation, gastrointestinal upset, and emesis (often abbreviated SLUDGE) along with miosis strongly suggest an acute cholinergic (parasympathomimetic) syndrome. Organophosphates and carbamates both inhibit acetylcholinesterase, resulting in high acetylcholine levels. Opioids generally cause respiratory depression and pinpoint pupils but not the pronounced GI and secretory symptoms. Phenothiazines and tricyclic antidepressants produce distinctly different toxidromes. Therefore, carbamate poisoning best fits these findings.

NODIA

143. (a) Surfactant Protein B deficiency
Congenital surfactant protein B deficiency is a rare but severe disorder leading to refractory respiratory failure shortly after birth. Infants do not improve adequately even with exogenous surfactant administration, mechanical ventilation, or ECMO. Primary ciliary dyskinesia tends to present later with recurrent infections; persistent tachypnea of infancy is typically milder. Lymphocytic interstitial pneumonitis is more common in certain immunodeficiency states. The severe, treatment-resistant course described strongly suggests Surfactant Protein B deficiency.

144. (d) Chediak Higashi syndrome
Chediak–Higashi syndrome is an autosomal recessive disorder featuring partial oculocutaneous albinism, recurrent infections, and the presence of giant granules in leukocytes (peroxidase-positive inclusions). It reflects a defect in lysosomal trafficking, leading to abnormal granule fusion. Hermansky–Pudlak syndrome also causes albinism with bleeding issues but not typically giant lysosomal granules. Waardenburg syndrome involves hearing loss

3. Thalassemia (C) → marked hepatosplenomegaly and severe pallor → (4).
4. Hemophilia (D) → bleeding into joints, often the knee, causing recurrent hemarthrosis → (1).

207. (b) ABO incompatibility
A neonate with a positive direct antiglobulin (Coombs) test and spherocytes suggests an immune-mediated hemolysis. ABO hemolytic disease of the newborn often presents early (first 24–48 hours) with jaundice, can display spherocytes on smear, and is typically Coombs-positive. Although hereditary spherocytosis also shows spherocytes, it does not cause a positive direct Coombs' test. G6PD deficiency has a negative Coombs' test and different triggers.

208. (c) chest X-ray and observation
Ingestion of kerosene or other hydrocarbons carries the main risk of aspiration and subsequent chemical pneumonitis. Because the patient is asymptomatic, inducing emesis or performing lavage is contraindicated due to the added risk of aspiration. Instead, supportive management and careful observation are advised. A chest X-ray helps detect early signs of aspiration pneumonia. Active interventions (emesis, lavage, or charcoal) can do more harm than good with volatile hydrocarbons.

209. (d) Constitutional growth delay
Constitutional growth delay (CGD) is a pattern where children grow at a normal rate but remain on the lower percentiles initially and then often have a later-than-average puberty, ultimately reaching normal adult heights. While hypothyroidism, growth hormone deficiency, and chronic systemic illness are important causes of short stature, the single most common cause in otherwise healthy children is CGD. They typically have a family history of delayed growth spurts but normal adult stature.

210. (b) Permethrin 5% (w/w) cream
Scabies in infants and young children is best treated with topical permethrin 5% cream applied to the entire body (including the scalp in very young children) and left overnight before washing off. Permethrin 1% is generally used for head lice, not scabies. Gamma benzene hexachloride is avoided in infants because of potential neurotoxicity. Benzyl benzoate 25% can be irritating for very young skin. Permethrin 5% is both safe and effective for pediatric scabies.

211. (c) Folic acid
Folic acid supplementation before conception and during early pregnancy has been conclusively shown to reduce the incidence of neural tube defects (e.g., spina bifida) in the developing fetus. Riboflavin (B2) and pyridoxine (B6) have important roles in metabolism, but they do not specifically prevent neural tube malformations. Cyanocobalamin (B12) is also important for neurological function, but the prime recommendation for neural tube defect prevention is adequate folic acid intake.

212. (c) Vitamin A deficiency
Vitamin A deficiency is a leading cause of preventable childhood blindness, especially in developing countries. It can progress from night blindness (nyctalopia) to xerophthalmia and keratomalacia, causing irreversible corneal damage. While trachoma has historically been significant, improved hygiene and public health measures have reduced its incidence in many areas. Traumatic cataract and recurrent conjunctivitis are not the principal preventable causes of blindness in children compared to vitamin A deficiency.

213. (a) 0.9 – 1.1 g/dL
Human breast milk contains relatively low protein compared to cow's milk but is highly believable and specifically suited for infant needs. On average, it has about 1 g/dL of protein (or roughly 0.8–1.2 g/dL depending on stage of lactation). This is adequate for growth and immune support in human infants. Options such as 2–3 g/dL or higher would exceed typical human breast milk protein levels.

214. (c) Gross hematuria
Pediatric nephrotic syndrome is characterized by heavy proteinuria, hypoalbuminemia, edema, and hyperlipidemia. Although microscopic hematuria can sometimes be seen, gross hematuria is not a usual hallmark of nephrotic

Click Here to Buy book on Amazon

difficulties and signs of congestive heart failure unless mixing of blood (e.g. via an ASD, VSD, or PDA) partially compensates. Tetralogy of Fallot typically produces a boot-shaped heart with decreased pulmonary markings; cystic fibrosis is primarily a pulmonary disease, not a congenital heart defect.

261. (a) Packed cell transfusion
With a hemoglobin of only 2 g/dL plus signs of congestive heart failure, the child urgently needs to improve oxygen-carrying capacity without significantly increasing intravascular volume. Packed RBCs allow red blood cell replacement with minimal additional fluid, reducing the risk of fluid overload. Whole blood would introduce more volume, potentially worsening heart failure. Partial exchange transfusion or immediate iron injections are less effective for acute correction of both anemia and circulatory compromise.

262. (c) 2 and 4 only
Attention deficit hyperactivity disorder (ADHD) typically has two major clusters of symptoms: inattention and hyperactivity/impulsivity.
1. Easily distracted (2) and Does not seem to listen (4) reflect inattention.
2. Fidgeting (1) and difficulty awaiting turn (3) align more with hyperactivity/impulsivity.

Hence statements (2) and (4) are classic pointers toward the inattentive domain, making option (c) correct for inattention criteria.

263. (c) Prostaglandin E_1
In many cyanotic congenital heart lesions—especially those that are duct-dependent (e.g. transposition of the great arteries, pulmonary atresia)—maintaining patency of the ductus arteriosus is critical. Prostaglandin E_1 (PGE_1) infusion keeps the duct open, ensuring adequate mixing or blood flow until definitive surgical or intervention al correction is done. Indomethacin or ibuprofen closes a patent ductus arteriosus; propranolol addresses tachyrhythmia or other conditions but does not maintain ductal patency.

264. (c) 2 and 4 only
Physiological jaundice in a term baby typically starts after the first 24 hours (often around day 2–3) and may last up to day 5–7. Thus, onset at 48 hours (2) and jaundice persisting on day 5 (4) are normal features. A rate of rise as high as 10 mg/dl/24 hr is actually higher than usual recommendations (<5 mg/dl/24 hr is often cited), and clay-colored stools (3) suggest obstructive or cholestatic pathology, not normal physiology. Therefore, only (2) and (4) are consistent with physiological jaundice.

265. (d) Congenital adrenal hyperplasia
Congenital adrenal hyperplasia (CAH), commonly 21-hydroxylase deficiency, leads to cortisol ± aldosterone deficits. Aldosterone deficiency results in sodium loss, hyperkalemia, and hypovolemia—often culminating in shock. Cortisol deficiency contributes to hypoglycemia and inability to respond adequately to stress. In a neonate with shock, hyperkalemia, and hypoglycemia, CAH is a prime suspect. Septicemia or inborn errors of metabolism can cause shock and hypoglycemia but are less likely to cause hyperkalemia in this classic pattern.

NODIA

266. (c) Foreign body aspiration
In a previously healthy child who suddenly begins coughing or choking and then develops stridor, a foreign body lodged in the airway is highly suspicious. Acute laryngo-tracheobronchitis (croup) usually has a more gradual onset with a barking cough, often preceded by mild upper respiratory symptoms. Laryngomalacia presents in infancy. Acute epiglottitis can appear abruptly but typically with high fever, drooling, and a toxic appearance. The keyword suddenly strongly points to foreign body aspiration.

267. (d) There is impaired humoral response to immunizing agents and reduced number of β-cells
Malnutrition prominently affects cell-mediated immunity, phagocyte function, and skin/mucosal barriers. Children are more prone to infections due to these immunological deficits. While some aspects of humoral immunity (like antibody response) can be diminished, it is generally less impacted than T-cell function. A markedly reduced number of β-cells (responsible

1. 100 ml/kg for the first 10 kg
2. 50 ml/kg for the next 10 kg
3 20 ml/kg for any weight above 20 kg

For a 15 kg child:

1. First 10 kg = 10 × 100 ml = 1000 ml
2. Remaining 5 kg = 5 × 50 ml = 250 ml

Total = 1250 ml/day.

224. (c) Thalassaemia

Severe microcytic anemia with high output cardiac failure and splenomegaly beginning in early infancy is highly suggestive of beta thalassaemia major. Peripheral blood smears often show microcytosis, ani so poikilocytosis, and nucleated RBCs (normoblasts). Iron deficiency anemia usually presents a bit later and without such severe hemolysis and splenomegaly. Sickle cell disease typically shows sickle-shaped RBCs, and sideroblastic anemia is much less common in a 6-month-old presenting this way.

225. (d) Lipoid pneumonia

When a child inhales or ingests petroleum-based hydrocarbons like kerosene, it can lead to lipoid pneumonia. The hydrocarbon material provokes an inflammatory response in the lungs, causing patchy, ill-defined infiltrates on the chest radiograph. Loeffler's syndrome is a transient respiratory illness associated with eosinophilia; E. coli pneumonia is less typical in this clinical setting. Allergic bronchopulmonary aspergillosis mainly arises in asthmatics with fungal hypersensitivity. Lipoid pneumonia best fits the kerosene ingestion history and imaging findings.

226. (a) Tricuspid atresia

Tricuspid atresia forces all venous return to pass through an atrial septal defect into the left heart, leading to a single S2 (pulmonary valve closure is diminished). A VSD is typically present to allow blood into the right ventricle/pulmonary artery. The ECG often shows left axis deviation and LVH because the left ventricle handles the bulk of cardiac output. Pulmonary atresia can also cause cyanosis and single S2, but left axis deviation is most classically associated with tricuspid atresia.

227. (b) Patent ductus arteriosus

Congenital rubella syndrome commonly affects the heart, ears, and eyes. A patent ductus arteriosus (PDA) is the most classic cardiac lesion, often discovered in infants of mothers who had rubella infection during early pregnancy. Other defects such as pulmonary artery stenosis may also occur, but PDA remains the hallmark. ASD and VSD are more generally common in the population, but specifically with rubella, PDA is most strongly linked.

228. (b) Bronchiolitis

Bronchiolitis most commonly affects infants and young toddlers (especially under 2 years), presenting with mild fever, cough, tachypnea, wheezing, and hyperinflation on chest X-ray. Respiratory syncytial virus (RSV) is a classic cause. The infant here is not severely toxic, has bilateral wheeze, and hyperinflation—classic for bronchiolitis. Laryngotracheobronchitis (croup) typically presents with a barking cough and stridor. Endobronchial TB is less likely with just two days of mild illness. Asthma is less commonly diagnosed this early without prior episodes.

229. (c) Laryngomalacia

Laryngomalacia is the most common cause of persistent stridor beginning in early infancy (often noted within the first two weeks of life). It results from congenital floppiness of the supraglottic structures that collapse inward during inspiration, producing a characteristic inspiratory stridor. Croup (laryngotracheobronchitis) presents more acutely, typically later in infancy. Tracheoesophageal fistula usually manifests with feeding difficulties and choking from birth. Eventration of the diaphragm causes respiratory distress but not the typical inspiratory stridor of laryngomalacia.

230. (b) Morphine, Soda-bicarb and Propranolol

During Tet spells or hypercyanotic episodes in Tetralogy of Fallot, key acute measures include supplemental oxygen, knee-chest positioning, morphine (to reduce respiratory drive and calm the child), sodium bicarbonate if acidosis is present, and a beta-blocker such as propranolol

Downloaded from www.pdf.tube

hormones (especially estrogens and prolactin) that stimulate the neonate's breast tissue. It typically appears a few days after birth and then resolves spontaneously. Neither progesterone nor calcitonin are the principal causes of this phenomenon. The correct statement is that it is commonly observed in full-term babies.

276. (c) Cephalohaematoma
A cephalohaematoma is a subperiosteal hemorrhage confined by cranial suture lines. Typically, it arises during instrumental delivery or birth trauma when periosteal blood vessels are ruptured. Because the periosteum is tightly adhered at the suture margins, the swelling does not cross suture lines. This contrasts with a caput succedaneum, which is a more diffuse edema of the scalp that can cross sutures. Subgaleal hemorrhage can cross sutures but usually extends widely under the aponeurotic layer.

277. (c) 1, 3 and 4
Unusual but recognized complications of BCG vaccination include suppurative lymphadenitis at the draining lymph node, osteitis (particularly in certain populations), and disseminated BCG infection in severely immuno compromised patients. Guillain-Barré syndrome is not classically associated with BCG (it is more commonly linked to certain infections or occasionally with other vaccines).

278. (c) 3
Apgar scoring components each yield 0–2 points:
1. Heart Rate = 92 =1 point (HR < 100)
2. Respiratory effort = slow, irregular =1 point
3. Muscle tone = flaccid =0 points
4. Reflex irritability = no response =0 points
5. Colour = body pink, extremities blue =1 point

Adding 1 + 1 + 0 + 0 + 1 = 3.

279. (b) Two paediatric tablets twice a day
For pediatric pneumonia, WHO/IMNCI guidelines often recommend cotrimoxazole (sulfamethoxazole-trimethoprim) in a dose approximating 8 mg/kg/day of trimethoprim in two divided doses. A standard pediatric tablet generally contains 80 mg trimethoprim + 400 mg sulfamethoxazole. For a 16 kg child, about 2 tablets twice daily is appropriate to achieve the recommended daily trimethoprim dose (~160 mg/day).

280. (c) A monovalent vaccine of Hepatitis B
In India's Universal Immunization Programme (UIP), the birth dose of Hepatitis B vaccine is given as a single-component (monovalent) vaccine. The pentavalent (DPT-HepB-Hib) injection is introduced starting from 6 weeks of age, not at birth. Hence the correct preparation for the birth dose is a monovalent Hepatitis B vaccine.

281. (d) 2, 3 and 4
Congenital rubella syndrome typically features the triad of (1) sensorineural deafness, (2) congenital heart defects (particularly patent ductus arteriosus), and (3) ocular anomalies such as cataracts. Hydrocephalus is not part of the classical triad. Hence (2), (3), and (4) form the recognized triad.

NODIA

282. (c) 1, 2 and 4
In catch-up immunization for a completely unvaccinated 2-year-old, BCG can still be given (if not previously received and no active TB). DPT-1 (as part of the primary series) is also initiated, and measles (commonly first dose at 9 months) must be given if not received. While Hepatitis B is crucial, government UIP protocols typically emphasize BCG, DPT, OPV, and measles first in an older child's catch-up. Hence, from the listed choices, 1 (BCG), 2 (DPT-1), and 4 (Measles) are correct.

283. (a) 2, 3 and 4
BCG is administered intradermally, not intramuscularly. Hepatitis B, Pentavalent (DPT + HepB + Hib), and Inactivated Polio Vaccine (IPV) are all given via the intramuscular route under most national immunization guidelines. Thus items 2, 3, and 4 are correct.

284. (b) 10 mg per day for 10–14 days

complications but not frequent fractures in this pattern.

238. (d) Respiratory rate
The Apgar score is assessed at 1 minute and 5 minutes after birth, evaluating 1) Appearance (color), 2) Pulse (heart rate), 3) Grimace/response to stimulation (reflex irritability), 4) Activity (muscle tone), and 5) Respiration (respiratory effort). It does not specifically measure respiratory rate, but rather whether the baby is crying vigorously, breathing well, or having weak or absent respiratory effort. Thus, respiratory rate is not named as an Apgar component, making it the best except.

239. (d) Carditis
The major Jones criteria for acute rheumatic fever are: carditis, polyarthritis, chorea, erythema marginatum, and subcutaneous nodules. Elevated ESR/CRP, prolonged PR interval, and elevated or rising antistreptolysin O (ASO) titers are considered minor or supportive findings—though they help confirm recent streptococcal infection and overall suspicion. Carditis is a definitive major manifestation and can present as valvulitis, myocarditis, or pericarditis.

240. (b) Low T_3, low T_4, high TSH
Primary hypothyroidism is characterized by inadequate production of thyroid hormones (T_4, T_3) by the thyroid gland. Because the feedback loop sees low circulating T_4/T_3, the pituitary responds by raising TSH levels in an attempt to stimulate the thyroid. Thus, T_4 and T_3 are low, TSH is high. In secondary (pituitary) or tertiary (hypothalamic) hypothyroidism, TSH can be normal or low, but that is not the case here.

241. (d) The seizures are followed by Todd's paralysis
Simple febrile seizures typically affect children 6 months to 5 or 6 years old, last less than 15 (to 30) minutes, and are usually generalized. They tend to occur when fever rises quickly. Todd's paralysis (a transient focal neurological deficit after a seizure) is more characteristic of epileptic or complex seizures rather than simple febrile seizures. Hence, postictal Todd's paralysis is not a typical feature of simple febrile convulsions.

242. (b) Rheumatic chorea (Sydenham's chorea)
Also known as Sydenham's chorea, rheumatic chorea arises after a streptococcal infection (usually 1–6 months later). It manifests with sudden, purposeless, non repetitive movements (chorea), emotional lability, and possible milkmaid's grip. The patient's history of recurrent sore throats points to a background of rheumatic fever. Wilson's disease typically has liver involvement and Kayser-Fleischer rings, encephalitis presents with acute systemic/neurological changes, and a brain tumor would have more focal or progressive neurological deficits.

243. (a) Interstitial keratitis
Neonatal congenital syphilis commonly manifests as snuffles, hepatosplenomegaly, rash, and can include meningitis, choroiditis, and osteochondritis (bone involvement). Interstitial keratitis, however, is part of the Hutchinson's triad that typically presents later in childhood or adolescence, not in the immediate neonatal period. Hence, among these choices, interstitial keratitis is the feature except for neonatal presentation and appears later as a sign of late congenital syphilis.

244. (b) Intestinal stenosis
Down syndrome (trisomy 21) is associated with growth delays, intellectual disability (mental retardation in older terminology), brachydactyly (short fingers), and various other characteristic features such as epicanthic folds and a single palmar crease. While congenital GI anomalies like duodenal atresia or Hirsch sprung disease can occur, true intestinal stenosis is not classically described as a hallmark. Duodenal atresia causes a different radiographic picture (double-bubble), not typical stenosis. Hence, option (b) is the correct except.

245. (c) IgG
Maternal IgG is actively transported across the placenta, conferring passive immunity to the fetus and newborn during the first few months of life. In contrast, IgM is too large to cross the placenta, IgA is mainly found in secretions (such as breast milk), and IgE is associated with

Click Here to Buy book on Amazon

syndrome. Thus, among the classic hallmarks listed, (c) is the exception.

215. (d) Seizures
Sydenham's chorea (part of rheumatic fever) involves rapid, purposeless movements, muscle hypotonia, emotional lability, and milkmaid's grip. Speech can become irregular and difficult to understand. Seizures are not a characteristic feature of Sydenham's chorea, differentiating it from other neurological conditions that may present with involuntary movements plus seizures.

216. (d) 450 nm
Neonatal phototherapy to reduce bilirubin levels is most effective in the blue-light spectrum around 450 nm. This wavelength converts bilirubin into more water-soluble isomers that can be excreted without conjugation. UV wavelengths in the 150–250 nm range are not used for neonatal jaundice management and can be harmful. The therapeutic window lies in the blue region of visible light (approximately 430–490 nm), with about 450 nm being the optimal peak.

217. (d) Prednisolone
Minimal change nephrotic syndrome in children usually responds dramatically to corticosteroids. First-line therapy for inducing remission is daily prednisolone over several weeks. Furosemide may help control edema symptomatically, but it does not induce remission. Cyclophosphamide can be considered for frequently relapsing or steroid-dependent cases, and levamisole is an alternative steroid-sparing agent. However, for initial remission induction, prednisolone remains the gold standard.

218. (b) Joint deformities are common sequel
Acute rheumatic fever typically involves migratory polyarthritis affecting large joints (knees, ankles, elbows, wrists). An elevated ASO (anti-streptolysin O) titer helps confirm recent Streptococcus infection. The inflammation is usually very responsive to salicylates (aspirin). However, persistent or erosive joint deformities are not characteristic of rheumatic fever; the arthritic changes generally resolve without lasting damage.

219. (c) 1,000 Kcal
By around 1 year of age, average daily energy requirements are about 1,000 kcal for a typically developing infant. Younger infants need fewer total calories, though more per kg body weight. Caloric needs increase with age, but 1,200 kcal at this age would generally exceed the typical recommendation. Five hundred or seven hundred would likely be too low for a 12-month-old child's nutritional demands.

NODIA

220. (d) Nose picking
In young children, the anterior portion of the nasal septum (Kiesselbach's area) is richly vascular and easily traumatized. Habitual nose-picking can abrade these vessels, causing nosebleeds (epistaxis). While other causes (like foreign body or chronic rhinitis) can occur, simple digital trauma remains the most frequent culprit for epistaxis in early childhood.

221. (c) Henoch–Schönlein purpura
Henoch–Schönlein purpura (HSP) is characterized by a palpable purpura (often on buttocks and lower extremities), arthralgia or arthritis (commonly knees/ankles), and abdominal pain (sometimes with GI bleeding). It typically affects young children. Idiopathic thrombocytopenic purpura (ITP) involves low platelets but usually lacks the joint and abdominal involvement seen in HSP. Kawasaki disease and Takayasu arteritis present with different clinical profiles.

222. (c) BCG
Measles, varicella, and MMR (measles–mumps–rubella) vaccines are generally given subcutaneously. BCG (Bacillus Calmette–Guérin) is administered intradermally (typically on the left upper arm) for tuberculosis prophylaxis. Hence, BCG is the exception among these listed options.

223. (b) 1250 ml
A commonly used formula for daily maintenance fluids in children is:

253. (d) Course of the disease has no association with uveitis
Juvenile rheumatoid arthritis (now often called juvenile idiopathic arthritis) begins before age 16. Systemic onset (Still's disease) is one recognized form, though others also occur. Uveitis is a known complication—particularly in the pauciarticular (oligoarticular) subtype—and may progress silently without symptoms. Indeed, regular ophthalmologic screening is recommended due to the real risk of ocular involvement. Thus, the statement that the course of the disease has no association with uveitis is incorrect.

254. (d) Zinc
Acrodermatitis enteropathica is an autosomal recessive disorder characterized by defective zinc absorption, leading to a triad of dermatitis (particularly around body orifices and acral surfaces), diarrhea, and alopecia. Supplementing zinc rapidly reverses the condition. Copper deficiency yields different clinical issues (e.g., anemia, neutropenia), cobalt deficiency is extremely rare in humans (and is mainly integral to vitamin B12), and chromium deficiency affects glucose metabolism.

255. (d) Cystic fibrosis
Cystic fibrosis is an autosomal recessive disorder caused by mutations in the CFTR gene. Children must inherit two defective alleles (one from each parent) to manifest the disease. By contrast, achondroplasia, neurofibromatosis type 1, and Marfan syndrome commonly follow autosomal dominant inheritance. Only one mutant allele is needed to express these conditions. Thus, among the listed options, cystic fibrosis stands out as autosomal recessive.

256. (c) Intussusception
In intussusception, one segment of the intestine telescopes into another, often causing obstruction and ischemia. This can lead to the passage of red current jelly stools—stool mixed with blood and mucus. It is a classic descriptor of this condition in infants. Acute gastroenteritis typically produces watery or sometimes bloody diarrhea, but not the typical currant jelly. Rectal piles and fissure-in-ano do not generally occur at this age with that specific presentation.

257. (d) Opsoclonus
Wilms' tumor (nephroblastoma) is linked to aniridia (WAGR syndrome), hemihypertrophy, and occasionally horseshoe kidney. Opsoclonus-myoclonus syndrome (dancing eyes, dancing feet) is more notably associated with neuroblastoma. In Wilms' tumor, ocular involvement such as aniridia is common, but opsoclonus is not a recognized paraneoplastic manifestation. Hence, among the listed associations, opsoclonus is the exception.

258. (a) Hemophilus influenza type B
Before widespread vaccination, Hemophilus influenzae type b (Hib) was the leading cause of acute epiglottitis in young children, a potentially life-threatening infection causing airway obstruction. Vaccination has greatly reduced its incidence, but it remains the classic etiology. Viral pathogens (e.g., influenza, parainfluenza) often lead to croup (laryngotracheobronchitis), whereas staphylococcal infection is more often linked with pneumonia or secondary bacterial tracheitis, not classic acute epiglottitis.

259. (d) Kawasaki disease
Kawasaki disease is an acute vasculitis of childhood. Its classical diagnostic features are fever for ≥5 days plus at least four of: non-purulent conjunctivitis, rash, cervical lymphadenopathy, oral mucosal changes (strawberry tongue, lip cracking), and extremity changes (swelling or desquamation). Coronary artery aneurysms are a severe complication. Measles, rubella (German measles), and progeria do not typically present with this combination of prolonged fever, conjunctivitis, lymphadenopathy, and coronary abnormalities.

260. (b) Transposition of great arteries
Transposition of the great arteries (TGA) commonly presents soon after birth with cyanosis. On a chest X-ray, TGA often shows a characteristic egg on a string or narrow mediastinum (narrow base) and increased pulmonary vascular markings (plethoric lung fields). Infants may have repeated respiratory

NODIA

to decrease infundibular spasm. These measures help reduce right-to-left shunting and improve pulmonary blood flow. Digoxin and diuretics are not mainstays of managing acute Tet spells, although they may be used for other cardiac issues.

231. (b) Henoch-Schönlein purpura
Henoch-Schönlein purpura (HSP) is characterized by a tetrad of palpable purpura (often on the buttocks/legs), arthritis/arthralgias, abdominal pain, and renal involvement (hematuria). Fever may be absent. This condition arises from IgA-mediated small-vessel vasculitis. By contrast, meningococcal meningitis presents with fever and possible petechial rash, ITP typically shows isolated thrombocytopenia without prominent joint/abdominal symptoms, and haemolytic uraemic syndrome involves microangiopathic hemolytic anemia, thrombocytopenia, and renal failure rather than classic purpura on the legs.

232. (b) 1 and 2 only
Haemolytic uraemic syndrome (HUS) typically presents with a triad: microangiopathic haemolytic anaemia (showing fragmented RBCs such as helmet cells/schistocytes), thrombocytopenia, and acute renal failure. The Coombs' test is usually negative, because the RBC destruction is mechanical rather than immune-mediated. Hence 3 (Positive Coombs' test) does not apply. Therefore, the correct features are 1 and 2 but not 3.

233. (c) Renal vein thrombosis
Severe dehydration can predispose to thrombosis due to increased blood viscosity and decreased renal perfusion. In a young child, acute renal vein thrombosis often presents with flank mass, hematuria, and sometimes thrombocytopenia. Wilms' tumor (nephroblastoma) typically presents more gradually with an asymptomatic abdominal mass. HUS more often features microangiopathic hemolysis and thrombocytopenia as the main clues. Hydronephrosis would typically cause distension, not sudden gross hematuria plus an acute flank mass.

234. (d) Phosphatidyl choline
Pulmonary surfactant is primarily composed of phospholipids (about 80%), proteins (surfactant-associated proteins), and neutral lipids. The most abundant single phospholipid is dipalmitoyl phosphatidylcholine (also called lecithin). Phosphatidyl glycerol does appear in later stages of fetal lung maturity, but it is not the principal constituent. Phosphatidyl choline (particularly dipalmitoyl) is the key molecule that reduces alveolar surface tension.

235. (d) Hemorrhagic disease of the newborn
Hemorrhagic disease of the newborn (now commonly called vitamin K deficiency bleeding) typically presents around day 2–7 of life with signs of bleeding (e.g., GI bleeding). The baby here is otherwise well, with a normal platelet count and no other bleeding lesions, which points away from disseminated intravascular coagulation or severe platelet disorders. Haemolytic disease of the newborn would involve hemolysis and jaundice, not isolated GI bleeding. Von Willebrand disease at this age would be extremely unusual.

236. (b) Molar
The first permanent tooth in children is usually the first permanent molar (6-year molar), which tends to erupt at about age six. The incisors follow later, but deciduous (milk) incisors appear in toddlerhood. Canines and premolars also come later in the mixed dentition period. Hence the first permanent tooth to typically erupt is the permanent first molar behind the last deciduous molar.

237. (c) Osteogenesis imperfect a
Osteogenesis imperfect a (OI) is a collagen synthesis defect (usually type I collagen) leading to brittle bones that fracture easily, often with minimal trauma. Infants may present with multiple fractures in different stages of healing, and other features can include blue sclera, hearing loss, and dental fragility. Osteomalacia or rickets in neonates does not typically feature multiple fractures that have already healed. Osteopetrosis (marble bone disease) causes abnormally dense bones prone to other

Downloaded from www.pdf.tube

for antibody production) is not a typical central feature of protein-energy malnutrition. Thus, (d) is the least accurate and considered the except.

268. (b) Microphthalmia
Turner's syndrome (45,X) commonly includes short stature, webbed neck, widely spaced nipples, lymphedema of the hands/feet (especially at birth), and coarctation of the aorta. Ovarian dysgenesis leads to lack of secondary sexual development. Microphthalmia is not a recognized hallmark—ocular findings in Turner's are less common and typically do not involve such a distinct reduction in eye size. Hence, (b) stands out as not typical of Turner's.

269. (c) Diarrhea
Congenital hypertrophic pyloric stenosis classically presents in 2–8 week-old infants with projectile, non-bilious vomiting, visible gastric peristalsis, and a palpable olive in the epigastrium. Because of vomiting and poor feeding, malnutrition and dehydration may ensue if not addressed. Diarrhea, however, is not typical—indeed, these infants often produce fewer stools due to decreased intestinal transit. Moreover, it predominantly affects male infants.

270. (a) Presence of mediastinal mass
Acute lymphoblastic leukemia (ALL) risk stratification often regards age between 1–10, hyperdiploidy (>50 chromosomes), and low WBC at diagnosis (<50,000/mm^3) as favorable prognostic markers. Conversely, T-cell ALL with a mediastinal mass, very high WBC counts, certain cytogenetic abnormalities (e.g., t(9;22)), or age <1 or >10 can indicate a worse prognosis. Thus, presence of a bulky mediastinal mass is a recognized poor prognostic sign in pediatric ALL.

271. (c) The dehydration should be corrected over 12 hours.
Hypernatremic dehydration can cause significant CNS symptoms (seizures, cerebral hemorrhage), so careful correction is critical. Rapid reduction of serum sodium risks cerebral edema. Typically, partial correction is done gradually over at least 24–48 hours using hypotonic fluids such as half-normal (N/2) or quarter-normal saline (N/4). The doughy skin texture is also characteristic. Therefore, stating that rehydration should be completed in just 12 hours is not correct for hypernatremic dehydration.

272. (a) 5% dextrose, 25 m Eq/L of sodium, 20 m Eq/L of potassium
A commonly cited standard maintenance fluid for children includes 5% dextrose in a hypotonic saline solution with a modest sodium level (usually around 25–30 mEq/L) plus a small amount of potassium (often 20 mEq/L) if the child's renal function is normal. This setup provides both caloric support (via dextrose) and necessary electrolytes while reducing the risk of sodium overload. Although exact formulations may vary by guideline, 5% dextrose with approximately 25 mEq/L Na and 20 mEq/L K is a frequent choice.

NODIA

273. (b) Lower areola more visible
Good latch typically shows a wide-open mouth with the baby's chin touching the breast, and the lower lip flanged or everted. In an ideal latch, the baby takes in more of the areola from below, meaning the mother (or observer) would see more of the areola above the baby's top lip rather than below. Therefore, saying lower areola more visible is not correct—usually the lower part of the areola is almost fully in the baby's mouth.

274. (c) X-linked recessive inheritance
Tuberous sclerosis (TS) is typically inherited in an autosomal dominant manner, though new (sporadic) mutations are common. Characteristic features include seizures (often infantile spasms), facial angiofibromas (historically called adenoma sebaceum), hypomelanotic macules (ash leaf spots), and Shagreen patches. Cortical tubers may also appear on neuroimaging. The condition is not X-linked; thus listing X-linked recessive inheritance is incorrect.

275. (a) It is seen in full-term infants.
Witch's milk refers to breast milk–like fluid secreted from the nipples of some newborns, more commonly in full-term infants. It results from the transplacental passage of maternal

allergic responses. The placental transfer of IgG helps protect the infant from various pathogens that the mother has antibodies against.

246. (c) Paroxysmal supraventricular tachycardia
A regular narrow-complex tachycardia at 220 beats/min in an infant, resolving promptly with IV adenosine, is most consistent with paroxysmal supraventricular tachycardia (PSVT). Adenosine temporarily blocks AV nodal conduction, often terminating the re-entrant circuit driving PSVT. Atrial fibrillation or flutter are less likely in such a young infant, and ventricular tachycardia typically does not normalize so quickly with adenosine. Prompt resolution of heart rate after adenosine administration strongly suggests PSVT.

247. (c) Choanal atresia
Newborns are predominantly nasal breathers. In choanal atresia, there is a blockage of the posterior nasal passages, causing obstruction when the mouth is closed. Crying forces the baby to breathe through the mouth, thereby relieving cyanosis; but when the baby is quiet and tries to breathe nasally, cyanosis worsens. Diaphragmatic hernia and congenital heart disease can cause respiratory distress or cyanosis, but they do not typically show improvement with crying. Tracheal agenesis is extremely rare and presents more severely.

248. (c) NaCl 2.69 g; KCl 1.5 g; Glucose 13.5 g; Citrate 2.9 g
The standard WHO Reduced Osmolarity ORS solution has approximately 75 mEq/L of sodium, 75 mmol/L of chloride, 20 mmol/L of potassium, 75 mmol/L of glucose, and 10 mmol/L of citrate, giving a total osmolarity of around 245 mOsm/L. In practice, this translates to roughly 2.6 g of NaCl, 1.5 g of KCl, 13.5 g of anhydrous glucose, and 2.9 g of trisodium citrate per liter. Option (c) aligns with those values (small variations are due to rounding).

249. (d) Mental retardation
Turner syndrome (45,X) typically presents with short stature, webbed neck, widely spaced nipples, streak ovaries, coarctation of the aorta, and sometimes horseshoe kidney. Although subtle learning difficulties can occur, marked intellectual disability is not a classic feature; most patients have normal intelligence. In contrast, a webbed neck, coarctation, and horseshoe kidney are recognized clinical associations. Therefore, mental retardation is the finding that is not characteristically part of Turner syndrome.

250. (d) Increase in breast size
In female puberty, thelarche (breast budding) generally occurs first, driven by rising estrogen levels. Pubarche (appearance of pubic hair) typically follows, influenced by adrenal and ovarian androgens. Menarche (onset of menstruation) happens later in the sequence, often around Tanner stage 3–4, approximately two years after breast budding. A marked change in voice is more characteristic of male puberty. Thus, breast development is recognized as the earliest visible sign among these options.

251. (d) Phenylketonuria
The Guthrie test is a bacterial inhibition assay historically used in newborn screening for phenylketonuria (PKU). Blood from a newborn's heel prick is placed on a filter paper disk and tested for elevated phenylalanine. If present in high concentrations, it overcomes the bacterial inhibitor in the medium, allowing bacterial growth to occur (a positive test). Modern programs employ various automated methods, but the classic Guthrie test remains well known for PKU screening, not for tyrosinemia, galactosemia, or alkaptonuria.

252. (c) Congenital adrenal hyperplasia
The classic salt-wasting form of congenital adrenal hyperplasia (CAH), usually due to 21-hydroxylase deficiency, leads to inadequate production of cortisol and aldosterone. This results in hyperkalemia, hyponatremia, hypoglycemia, and potentially life-threatening shock in the first few weeks of life. SIADH generally causes hyponatremia without hyperkalemia, gram negative sepsis would not characteristically produce this specific triad, and PKU causes developmental issues later rather than acute adrenal crisis. CAH best fits the described lab findings and shock.

Click Here to Buy book on Amazon

WHO/UNICEF guidelines recommend 10 mg/day of zinc supplementation for infants under 6 months and 20 mg/day for children 6 months and older, for 10–14 days, following an acute diarrheal illness. This supplementation reduces severity and duration of diarrhoea and can decrease the likelihood of recurrence in the short term.

285. (c) Eruption of teeth
Around 6–11 months, infants lose the passive protection from maternal antibodies, and complementary feeding begins—potentially introducing pathogens via contaminated solids or liquids. Additionally, exploratory behavior can increase contact with fecal matter if sanitation is poor. Teething, however, is not a direct, proven cause of diarrhea. Though it may coincide with increased mouthing of objects, eruption of teeth itself is not a recognized major factor in diarrheal incidence, making (c) the EXCEPT choice.

286. (d) All of these
Spina bifida (open neural tube defect) is often associated with the lemon sign (the frontal bones appear flattened inward on fetal skull ultrasound) and the banana sign (the cerebellum is curved and pulled downward, resembling a banana). Additionally, a defect in the vertebral arches and possibly protrusion of meninges or spinal tissue may be visualized. All these ultrasound findings help in diagnosing spina bifida prenatally and guiding further obstetric and pediatric management.

287. (b) 1 only
In pregnancies affected by Down syndrome, β-hCG tends to be elevated, while alpha-fetoprotein (AFP) is decreased and inhibin A is increased (not decreased). Hence, statement 1 (raised β-hCG) is correct, but statements 2 and 3 are reversed relative to the typical biochemical profile for trisomy 21. These marker trends (plus low uncovenanted estriol) are used in combined or quadruple screening tests to identify pregnancies at higher risk for Down syndrome.

288. (a) Down syndrome
Maternal serum alpha-fetoprotein (MSAFP) is classically decreased in Down syndrome. On the other hand, it is elevated in conditions where fetal serum AFP leaks into the amniotic fluid, such as neural tube defects (e.g., spina bifida), abdominal wall defects (e.g., omphalocele, gastroschisis), or fetal demise (where integrity of fetal tissues is compromised). Because Down syndrome typically presents with low AFP levels, it is the correct EXCEPT in this list.

NODIA

289. (b) Anterolateral aspect of thigh
For infants and young children, the anterolateral aspect of the thigh is the preferred intramuscular injection site for Hepatitis B (and many other routine) vaccines. This region has well-developed muscle and less subcutaneous fat, improving vaccine immunogenicity and reducing injury to underlying structures. The deltoid region is often used for older children and adults. The gluteal area is discouraged in young children because of potential reduced absorption and risk of sciatic nerve injury.

290. (d) A father aged 50 year or more
Common indications for amniocentesis include advanced maternal age (≥35 years), previous child with a chromosomal abnormality, or parental chromosomal rearrangements that risk aneuploidy in the fetus. These factors substantially raise the likelihood of genetic anomalies. Elevated paternal age does increase certain risks (like new dominant mutations), but it is not a standard recommended indication for routine amniocentesis in guidelines. Hence, father aged 50+ is the EXCEPT.

291. (d) HIV infection-symptomatic
Absolute contra indications to BCG vaccination typically involve severe immuno compromise, such as symptomatic HIV infection or other profound immunodeficiency. Neither low birth weight, prematurity, nor maternal TB history alone disqualifies the infant from receiving BCG. In fact, BCG is often given at birth (or soon after) in many countries. However, severely symptomatic HIV-positive newborns risk disseminated disease from the live-attenuated BCG, making that a specific contraindication.

making true RDS much less likely than in earlier gestations.

322. (d) Zinc
WHO and many national guidelines recommend zinc supplementation during acute diarrheal episodes—commonly 20 mg per day for children over 6 months (10 mg if under 6 months)—for 10–14 days. Zinc helps reduce the severity and duration of diarrhea and supports intestinal mucosal recovery. Iron, calcium, or copper are not routinely given for acute diarrhea management, unless specific deficiencies exist.

323. (c) Administration of antibiotic at home along with treatment for fever, advising the mother to return for reassessment after two days
In children aged 12 months to 5 years, pneumonia (per ARI guidelines) is defined by a respiratory rate >40 breaths/min plus cough or difficulty breathing, even if there is no chest in drawing. Here, the RR is 55/min, indicating pneumonia, not severe pneumonia (no in drawing). The recommended approach is to treat with an appropriate antibiotic at home, manage fever, and have close follow-up in about two days. Immediate referral is reserved for severe cases with chest in drawing or other danger signs.

324. (b) 1 and 3 only
Ileocolic intussusception often gives a claw sign (or coiled spring sign) on contrast imaging like a barium enema. Additionally, plain abdominal X-ray may reveal multiple air-fluid levels with the absence of gas in the cecum, suggestive of obstruction. The apple core sign (2) typically denotes an annular colonic carcinoma. A single large fluid and air level (4) is more indicative of gastric dilation or a massive single viscus obstruction rather than typical findings of intussusception.

325. (c) Tracheo-oesophageal fistula
The VACTER (or VACTERL) association stands for Vertebral defects, Anorectal malformations, Cardiac anomalies, Tracheo-Esophageal fistula, Renal anomalies, and Limb abnormalities. TE specifically denotes the presence of tracheo-esophageal fistula, wherein there is an abnormal connection between the esophagus and trachea, often accompanying esophageal atresia. Tetralogy of Fallot is a cardiac anomaly but not what TE signifies in this acronym.

326. (a) Immediate repair of the lip
Cleft lip repair is typically done by around three months of age (often following the rule of 10s: 10 weeks of age, 10 pounds weight, and hemoglobin near 10 g/dL). Palate repair usually follows several months later (often around 9–12 months), to allow for better growth and reduce speech difficulties. Combined immediate lip and palate repair is generally not favored; instead, the lip is addressed first, with palate closure delayed to optimize feeding, speech, and facial growth.

327. (d) Tetralogy of Fallot
Tetralogy of Fallot (TOF) is classically categorized among cyanotic congenital heart diseases because it involves right-to-left shunting through a ventricular septal defect due to infundibular pulmonic stenosis. This causes deoxygenated blood to enter systemic circulation, leading to cyanosis. Patent ductus arteriosus, atrial septal defect, and isolated VSD typically cause left-to-right shunts (acyanotic lesions) unless they become reversed (Eisenmenger's syndrome), which is not their usual presentation at birth.

328. (b) Laryngeal diphtheria
Historically, one of the common pediatric indications for tracheostomy was airway obstruction secondary to laryngeal diphtheria (croup caused by Corynebacterium diphtheriae). Although now much less common in places where vaccination is widespread, diphtheria remains a classic cause of airway compromise in children requiring an urgent tracheostomy. Carcinoma of the larynx is extremely rare in this age group, vocal cord paralysis can sometimes be managed less invasively, and poliomyelitis typically demands ventilatory support but not necessarily a tracheostomy.

329. (c) Congenital hypertrophic pyloric stenosis
In infants around 2–8 weeks old, congenital hypertrophic pyloric stenosis is the classic cause of gastric outlet obstruction, presenting

Downloaded from www.pdf.tube

299. (d) 100 mg elemental Iron and 500 mcg folic acid
Under India's National Iron Plus Initiative, adolescents (10–19 years) are placed in the higher dose category. When supplementation is given daily (particularly to treat or prevent anemia in older children and adolescents), the standard recommended dose is around 100 mg of elemental iron plus 500 micrograms of folic acid. This is to address the increased iron demands during growth spurts and to combat widespread anemia in this age group. Younger children (under 10) generally receive lower doses.

300. (b) Within one hour of birth
The World Health Organization (WHO) and UNICEF recommend initiating breast feeding within the first hour of life. This immediate skin-to-skin contact and early feeding helps improve neonatal survival rates by ensuring the newborn receives colostrum—rich in immune factors and nutrients—and establishes successful lactation. Early initiation also fosters bonding and reduces infection risk. Although some older guidelines cited within half an hour, the widely accepted global standard for a normal delivery is to begin breast feeding within one hour of birth.

301. (d) 8
Under Home-Based Newborn Care (HBNC) guidelines, additional visits are recommended for low birth weight (LBW) or preterm infants to provide closer monitoring of feeding, warmth, and danger signs. While six visits (within the first six weeks) are standard for normal birth weight babies, LBW babies require extra follow-up extending up to 42 days and beyond (often on Day 60 and Day 90 as well). These eight visits by the Auxiliary Nurse Midwife (ANM) or ASHA worker help reduce neonatal mortality and morbidity among vulnerable newborns.

302. (a) Torsion of right testis
Acute torsion of the testis presents with sudden, severe scrotal pain, often in a boy or young adult. Swelling, tenderness, and high-riding position of the affected testis are commonly noted. The spermatic cord twists, compromising blood supply and causing ischemia. Other diagnoses like strangulated inguinal hernia or epididymo-orchitis may present similarly, but torsion is most likely in an eight-year-old with abrupt and severe pain. Early surgical intervention is critical to salvage testicular viability.

303. (a) Both active and passive immunisation soon after birth
All neonates born to mothers positive for hepatitis B surface antigen (HBsAg) require prophylaxis with both hepatitis B immunoglobulin (HBIG) and the hepatitis B vaccine at birth—irrespective of HBeAg status. The HBIG provides immediate passive protection, while the vaccine (active immunization) stimulates the newborn's immune system. Delaying the vaccine to one year or giving only one form of prophylaxis is insufficient to prevent vertical transmission.

NODIA

304. (d) Hirschsprung's disease
Hirschsprung's disease (congenital aganglionic megacolon) is often cited as the most frequent cause of lower intestinal obstruction in neonates. The absence of ganglion cells in the distal colon impairs normal peristalsis, causing a functional obstruction. Though meconium ileus (commonly linked with cystic fibrosis) and duodenal atresia also lead to neonatal intestinal blockage, Hirschsprung's disease typically surpasses them in incidence overall. Clinically, it presents with delayed passage of meconium, abdominal distension, and features of obstruction within the first few days of life.

305. (a) Preservation of Brachial artery entanglement
A supracondylar fracture of the humerus in children carries a high risk of neurovascular compromise, particularly to the brachial artery. Ensuring that the brachial artery is not trapped or kinked is a priority because vascular insufficiency can lead to ischemia and potentially Volkmann's ischemic contracture. While stabilization (immobilization) and preventing infection are also important, the immediate concern is to check and secure the neurovascular status. Prompt reduction and fixation help restore alignment and circulation to prevent permanent complications.

292. (b) Zinc deficiency
Under RBSK, four major categories are screened—4 Ds: Defects at birth, Diseases in children, Deficiencies, and Developmental delays. Common Deficiencies specifically noted include iron deficiency anemia, Vitamin A and Vitamin D deficiency, iodine deficiency, and severe acute malnutrition. Zinc deficiency is not one of the principal nutritional deficiencies listed in RBSK's standard screening. While zinc is important clinically, RBSK's established protocol focuses on more prevalent or historically recognized deficiencies in Indian children.

293. (c) Once a week for first month and then once fortnightly
Upon discharge of a severely malnourished child from an NRC, government guidelines recommend close follow-up to ensure continued nutritional recovery. Typically, the child is visited or checked by an Anganwadi Worker weekly for about 4 weeks, ensuring feeding practices, weight gain, and overall health are on track. Afterward, visits shift to a fortnightly schedule for ongoing monitoring until the child stabilizes nutritionally. Thus, option (c) aligns with these standard follow-up recommendations.

294. (c) 1 and 3 only
Even if birth weight is somewhat low (2.2 kg), a healthy newborn should still receive BCG and OPV soon after birth (no need to wait until 2.5 kg). Exclusive breast feeding for 6 months is recommended to ensure adequate nutrition and immunity. Kangaroo mother care (skin-to-skin contact) helps maintain body temperature, promotes bonding, and supports weight gain in low-birth-weight infants. Therefore, statements 1 and 3 are correct, while statement 2 is incorrect.

295. (c) Child is showing signs of growth failure
A normal growth curve on a weight-for-age or length/height-for-age chart should show a steady upward trend as a child grows. When the curve flattens, it indicates the child is not gaining sufficient weight or height as expected, which is termed growth faltering. This can be an early sign of undernutrition, recurrent infections, or other health issues. Prompt intervention—nutritional assessment, dietary improvement, and management of infections—helps prevent progression to severe malnutrition and ensures the child returns to a healthy growth trajectory.

296. (c) Chest in drawing
According to WHO/IMNCI guidelines, chest in drawing (especially lower chest wall in drawing) is a key sign of severe pneumonia in children. While fast breathing may indicate pneumonia, the presence of marked inward movement of the chest with breathing suggests more serious involvement of the lungs, indicating that the child is working harder to breathe. This finding often necessitates urgent medical attention and possibly hospital-based treatment. Other signs (nasal flaring, grunting) also indicate distress but chest in drawing is the critical sign used for severity classification.

297. (c) 1, 2 and 3
Navjat Shishu Suraksha Karyakram (NSSK) is a Government of India program focused on improving newborn health outcomes by training health workers in the golden minute of newborn care and resuscitation. It includes preventing hypothermia and infection, encouraging immediate breast feeding, and ensuring proper resuscitation techniques. The objective is to have at least one skilled provider at each delivery point to handle basic newborn care emergencies. Hence, all three statements accurately describe the goals and scope of this national initiative.

298. (b) Congenital hypothyroidism
Newborn biochemical screening typically tests for inborn errors of metabolism and endocrine disorders such as congenital hypothyroidism and certain metabolic conditions (e.g., phenylketonuria). Congenital hypothyroidism is detected via a blood spot TSH or T4 test. Catching and treating thyroid insufficiency early can prevent growth failure and irreversible intellectual disability. By contrast, congenital dislocation of the hip is diagnosed by clinical/orthopedic examination, chromosomal abnormalities usually require cytogenetic testing, and congenital rubella is identified serologically rather than through routine biochemical screening panels.

Click Here to Buy book on Amazon

often prompts imaging studies that confirm the diagnosis. Early detection and management are crucial for favorable long-term outcomes in children with Wilms' tumor.

314. (a) Intussusception
Intussusception, in which a segment of bowel telescopes into an adjacent one, is the leading cause of acute intestinal obstruction in children (especially between 6 months and 3 years). It often presents with colicky abdominal pain, a palpable sausage-shaped mass, and sometimes currant jelly stools. Hirschsprung's disease, volvulus, and cystic fibrosis (mucoviscidosis) do cause obstruction, but less frequently overall compared to intussusception in that age group. Prompt radiologic or surgical reduction is critical to prevent bowel ischemia.

315. (c) Ramstedt's operation
Congenital hypertrophic pyloric stenosis presents in infants with projectile vomiting and a palpable olive in the epigastrium. The definitive treatment is Ramstedt's pyloromyotomy. This involves surgically splitting the hypertrophied pylorus muscle down to the submucosa, thereby relieving the obstruction. Heller's operation is used for achalasia of the esophagus, while duodenojejunostomy or gastrojejunostomy would bypass the gastric outlet rather than directly correcting the underlying pyloric problem. Ramstedt's operation has a high success rate with minimal complications.

316. (d) Tuberculosis
IMNCI (Integrated Management of Neonatal and Childhood Illness) addresses the leading killers of children under five: pneumonia, diarrhea, malaria (in endemic regions), measles, and malnutrition. Its aim is to manage these common, acute conditions at community and primary-health levels. While TB is a significant pediatric issue, it is not part of the core IMNCI case-management guidelines in the same manner as malaria or pneumonia.

317. (d) Measles vaccine
Although extremely rare, toxic shock syndrome (TSS) has been documented following certain injections or vaccinations, notably measles vaccine, often linked to contaminated injection practices or staphylococcal toxins. DPT, OPV, and recombinant Hepatitis B vaccines have different adverse profiles; TSS is not characteristically associated with them. Proper aseptic technique and vaccine handling minimize this rare complication.

318. (c) 24 months
Language milestones typically see toddlers combining two or three words into short sentences around 2 years of age (24 months). By 12–15 months, a child may say a few single words. By 3 years (36 months), the child can handle longer sentences and more complex grammar. Thus, short meaningful phrases or sentences begin reliably around 2 years.

319. (a) 4 weeks
According to immunization schedules, DPT (Diphtheria, Pertussis, Tetanus) vaccine primary doses are typically spaced at least 4 weeks apart for infants. This spacing ensures adequate immune response while not waiting too long between doses. Six to eight weeks might be too long or may delay full protection.

320. (c) Give the infant second dose of DPT/OPV
Primary immunization against diphtheria, pertussis, tetanus, and polio requires a series of doses at recommended intervals. If the child has only received the first doses and returns at 9 months (with no other doses given in between), you continue the schedule rather than restart or jump to booster. The correct step is to administer the second DPT and OPV doses, then subsequently complete the series. Boosters come after completion of the primary series plus a suitable time interval.

321. (d) Hyaline membrane disease
Small-for-date (intrauterine growth-restricted) infants near term (37 weeks) frequently face risks of hypoglycemia, hypothermia, and sometimes hypocalcemia. However, hyaline membrane disease (respiratory distress syndrome) is more typically associated with insufficient surfactant in preterm babies rather than those who are term, even if they are growth-restricted. By 37 weeks, lung maturity is usually adequate,

Downloaded from www.pdf.tube

306. (b) 1 and 3 only
Infantile hypertrophic pyloric stenosis classically presents around 2–8 weeks of age with non-bilious projectile vomiting, visible gastric peristalsis, and a palpable olive-like mass in the epigastric region. Because the obstruction is proximal to the entry of bile into the duodenum, vomiting is typically non-bilious, not bilious. Melena is also not a standard feature. Thus, among the listed options, Visible gastric peristalsis and Palpable tumour (hypertrophied pylorus) are the key findings.

307. (b) DPT
A severe adverse reaction, such as seizures/encephalopathy or neurologic compromise temporally associated with a previous whole-cell pertussis (DPT) vaccine, is a recognized contraindication for repeating the same DPT component. In such cases, the safer alternative is to switch to DT (Diphtheria-Tetanus) without the pertussis component, or to use an acellular pertussis formulation (DTaP) if available. Measles and Hepatitis B remain safe, whereas DPT is specifically contraindicated after serious neurologic events post-immunization.

308. (c) 3 - 6 months
Cleft lip repair is usually performed around 3 months of age, following the rule of 10s: approximately 10 weeks of age, 10 pounds in weight, and 10 g/dL hemoglobin. This timing ensures that the infant is healthy enough for anesthesia and promotes better healing while minimizing feeding or nutritional issues. Earlier than 3 months can be risky, whereas beyond 6 months can delay speech development. Hence, 3–6 months is a standard window for optimal surgical correction.

309. (d) 1, 2 and 3
Cleft palate can compromise the function of the Eustachian tube, predisposing to recurrent otitis media (1). Speech problems (2) are common due to the inability to achieve normal palatal closure required for articulation and resonance. Dentition abnormalities (3) may also occur because the maxillary arch can be malformed or misaligned. All three—ear infections, speech issues, and dental malocclusions—commonly appear in children with cleft palate, reinforcing the importance of a multidisciplinary management approach.

NODIA

310. (c) Parietal bone
A cephalhematoma is a subperiosteal hemorrhage confined to one cranial bone because the periosteum does not cross suture lines. The parietal bones are the most frequent site in newborns. Although it can occur over other bones (frontal, occipital, etc.), parietal bone involvement is by far the most common. Cephalhematomas typically resolve spontaneously but may increase jaundice risk by breaking down blood cells.

311. (c) Vaccine and Immunoglobulin
In an infant born to an HBV-infected mother, combined passive–active immuno prophylaxis is the most effective approach. Immediately after birth, the neonate should receive Hepatitis B immunoglobulin (HBIG) for immediate passive protection along with the first dose of the Hepatitis B vaccine to stimulate active immunity. This regimen significantly lowers the risk of vertical transmission and subsequent chronic HBV infection.

312. (a) Subcutaneous
The standard, recommended approach for measles vaccination (e.g., the measles component in MMR) is subcutaneous injection, typically in the upper arm's outer aspect. Intradermal application is used for BCG (and some diagnostic tests), intravenous administration is not appropriate for live vaccines, and intranasal routes are used for select vaccines (like certain influenza types).

313. (b) Abdominal mass
Wilms' tumor (nephroblastoma) is a renal malignancy primarily affecting young children. The classic presentation is a firm, smooth, unilateral abdominal mass often discovered incidentally by a caregiver. While hematuria, hypertension, and other systemic signs (like weight loss) may occur, they are less consistently present. The asymptomatic abdominal mass is by far the most common initial finding and

with projectile, non-bilious vomiting. The hypertrophied pylorus impedes gastric emptying. Annular pancreas and duodenal atresia typically manifest earlier (often with bilious vomiting if obstruction is distal to the ampulla of Vater), while a foreign body is uncommon in a 4-week-old. Thus, pyloric stenosis remains the most frequent diagnosis for this age with these symptoms.

330. (c) Guthrie Card
The Guthrie test (using a Guthrie Card) is the classic neonatal screening tool for conditions such as phenylketonuria (PKU), congenital hypothyroidism, and other metabolic disorders. A heel-prick blood sample is spotted onto special filter paper and analyzed. Tay-Sachs, Duchenne, and Maple Card are not standard names for universal newborn screening cards; the Guthrie card remains the well-established method.

331. (a) Respiratory infection
In India (and many developing regions), acute respiratory infections (particularly pneumonia) remain the leading single cause of death in children under five, including the 1–12 month age group. Diarrhea is also a major contributor, but national data often show pneumonia slightly outpacing diarrhea as the top killer in post-neonatal infancy. Malaria is region-dependent, and prematurity mostly factors into neonatal mortality (<1 month). Hence, among these choices, respiratory infection is considered the most common cause of death in 1–12 month-olds.

332. (c) 2500 gm
A low birth-weight (LBW) infant is defined by the World Health Organization (WHO) and adopted in India as one whose weight at birth is less than 2500 g (i.e., <2.5 kg). Infants below 1500 g are categorized as Very Low Birth Weight (VLBW), while those below 1000 g are Extremely Low Birth Weight (ELBW). Thus, 2500 g is the internationally accepted cutoff for LBW.

333. (c) pneumonia
According to WHO/IMCI guidelines, for a child aged 12 months to 5 years, a respiratory rate (RR) ≥40 breaths per minute suggests pneumonia if there are respiratory symptoms (like cough). Severe pneumonia typically requires additional findings such as chest indrawing, grunting, or cyanosis. Very severe disease demands danger signs (inability to feed, convulsions, etc.). An RR of 46 breaths/min in a 2-year-old surpasses the pneumonia cut-off of 40, thus meeting the classification of pneumonia (not severe).

334. (c) Herniotomy alone
In pediatric inguinal hernias, the essential pathology is a patent processus vaginalis; repairing it typically involves high ligation of the hernial sac (herniotomy) without the need for mesh or muscular repairs (e.g., Bassini, Shouldice, or Lichtenstein) that are standard in adults. Children's inguinal canal walls are otherwise healthy; simply closing the sac generally suffices.

335. (a) Erythematous papular pustular lesions
Erythema toxicum neonatorum is extremely common in the first 2 days of life, presenting with erythematous macules, papules, or small pustules on the trunk and sometimes the face. It's benign and resolves spontaneously. Milia, transient pustular melanosis, and congenital hemangiomas appear differently and with different timing or morphology.

336. (b) Primary school children
The Integrated Child Development Services (ICDS) covers children 0–6 years of age, pregnant women, lactating mothers, and adolescent girls (in certain expansions). It does not routinely include older primary school children (above age 6) under its usual supplementary nutrition or early child development program.

337. (d) Changes in occurrence over long period of time
A secular trend means a persistent, long-term pattern in disease incidence or prevalence across several years or decades. It does not simply refer to short-term or seasonal changes, nor variations by religion or social strata.

****

Click Here to Buy book on Amazon

Visit:
www.med.ink

UPSC CMS
PAPER - I

CHAPTERWISE PREVIOUS YEAR QUESTION BANK (2025-2009)

Scan QR Code to Access Free PDF

MEDink
125, Sector 6, Vidhyadhar Nagar, Jaipur 302039
www.med.ink

MRP ₹ 620.00